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**International Court
of Justice**

**Cour internationale
de Justice**

THE HAGUE

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YEAR 2015

Public sitting

held on Friday 24 April 2015, at 3 p.m., at the Peace Palace,

President Abraham presiding,

*in the cases concerning Construction of a Road in Costa Rica along the San Juan River
(Nicaragua v. Costa Rica); Certain Activities carried out by Nicaragua
in the Border Area (Costa Rica v. Nicaragua)*

VERBATIM RECORD

ANNÉE 2015

Audience publique

tenue le vendredi 24 avril 2015, à 15 heures, au Palais de la Paix,

sous la présidence de M. Abraham, président,

*dans les affaires relatives à Construction d'une route au Costa Rica le long du fleuve San Juan
(Nicaragua c. Costa Rica) ; Certaines activités menées par le Nicaragua
dans la région frontalière (Costa Rica c. Nicaragua)*

COMPTE RENDU

Present: President Abraham
 Vice-President Yusuf
 Judges Owada
 Tomka
 Bennouna
 Cançado Trindade
 Greenwood
 Xue
 Donoghue
 Gaja
 Sebutinde
 Bhandari
 Robinson
 Gevorgian
Judges *ad hoc* Guillaume
 Dugard

 Registrar Couvreur

Présents : M. Abraham, président
M. Yusuf, vice-président
MM. Owada
Tomka
Bennouna
Caçado Trindade
Greenwood
Mmes Xue
Donoghue
M. Gaja
Mme Sebutinde
MM. Bhandari
Robinson
Gevorgian, juges
MM. Guillaume
Dugard, juges *ad hoc*

M. Couvreur, greffier

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Le PRESIDENT : Veuillez vous asseoir. L'audience est ouverte. La Cour se réunit cet après-midi pour entendre la fin du premier tour de plaidoiries du Costa Rica. Je donne la parole à Monsieur Wordsworth.

Mr. WORDSWORTH:

THE ABSENCE OF SIGNIFICANT HARM ON THE SAN JUAN RIVER

1. Mr. President, Members of the Court, I am going to be introducing Costa Rica's case on the absence of significant impact caused by construction of the road. I want to focus, first, on the evidence that Nicaragua is relying on in this case, before responding in detail to the claim that sediment from the road is causing significant harm to Nicaragua through deposition in the Lower San Juan.

2. Dr. Parlett will then be responding on the other area of alleged significant harm, that is, harm to aquatic fauna, before looking briefly at the legal instruments in respect of which breach is alleged. But that will not detain her long. The case on significant harm stands or falls on the evidence of impact, so that is where I wish to start.

A. The evidence of significant harm that Nicaragua relies on

3. One very important feature of the case on significant harm, as it was put to you on Tuesday morning, was that the case turns almost exclusively on the empirical data submitted by Costa Rica.

4. As to the first limb of Nicaragua's claim, the Court will recall that the claim that significant quantities of sediment from the road is being deposited in the delta area of the Lower San Juan, as presented by my friend Mr. Reichler¹, turns almost exclusively on assumptions and calculations made by Dr. Andrews by reference to the reports of Costa Rica, including the report of the Department of Hydrology at Costa Rica's ICE Institute (Institute of Electricity). ICE, which only has access to measurements of flow rates and sediment content on the Río Colorado, has sought to extrapolate from those measurements to identify how much flow and sediment comes

¹CR 2015/9, pp. 10-23, esp. p. 10, para. 3 (Reichler).

into the Colorado, and how much goes into the Lower San Juan². It has done its best. And you have just heard from Professor Thorne as to the uncertainties surrounding its modelling exercise. The empirically correct figures on where the flow and where the sediment goes are known, or could be known, by Nicaragua alone. The Court already has firmly on board the point that Costa Rican agencies or experts have no means of monitoring flow rates or sediment concentrations in the San Juan River.

5. As to the second limb of Nicaragua's claim, significant harm to aquatic fauna, the principal evidence — and indeed virtually the only evidence deployed by Mr. Loewenstein in Nicaragua's opening³ — was based on Costa Rica's environmental diagnostic assessment, where Costa Rican experts measured the impact of sediments from the road on macroinvertebrates in streams on Costa Rican territory that flow under the road and then into the Río San Juan⁴.

6. Now, we will be coming back to what this evidence in fact shows in the course of what hopefully will not be too long an afternoon, but the point for now is that it is Nicaragua that is the Applicant in this case, and it is Nicaragua that has sovereignty over the San Juan. And yet it is relying on the empirical data of Costa Rica, and submitting virtually no empirical evidence of its own.

7. To recap, from Nicaragua, we have:

(a) the three INETER measurements of flow rates and suspended sediment concentrations, taken on dates in 2006, 2011 and 2012⁵. Only one of those is relevant to the period of construction of the road, and Dr. Kondolf accepted, as is self-evident from the INETER document, that this measurement shows no impact so far as concerns sediment coming from the road⁶. Perhaps we will be receiving more from Nicaragua this evening as a result of the Court's letter of 21 April,

²See Costa Rican Institute of Electricity (ICE), SBU Projects and Associated Services, Centre for Basic Engineering Studies, Department of Hydrology, "Second Report on Hydrology and Sediments for the Costa Rican River Basins draining to the San Juan River", Dec. 2014; RCR, Ann. 5.

³CR 2015/10, pp. 24-28, paras. 3-14 (Loewenstein).

⁴See Centro Científico Tropical (CCT) "Environmental Diagnostic Assessment (EDA), Route 1856 Project — Ecological Component", Nov. 2013; CMCR, Ann. 10; and Centro Científico Tropical (CCT), "Follow-up and Monitoring Study Route 1856 Project — EDA Ecological Component", Jan. 2015; RCR, Ann. 14.

⁵INETER, "Summary of Measurement of liquid and suspended solids content during the years 2006, 2011, 2012", 26 June 2012, *Certain Activities*; CMN, Ann. 16.

⁶CR 2015/8, pp. 49-50 (Kondolf).

and Costa Rica is very curious indeed about that. But, for the moment, the measurements on those three dates are all we have from Nicaraguan agencies. So, then there is;

- (b) there are the three sediment concentration samples taken by Dr. Kondolf from a muddy plume following a 15-minute downpour in May 2013⁷. These did not feature in Nicaragua's case on significant harm, as it was put on Tuesday morning, and presumably this was because, as follows from what Dr. Kondolf said in his report of 6 November 2013, they show no more than that sediment from the road is entering the San Juan⁸. And,
- (c) finally, there is the report of Dr. Rios, who carried out a limited sampling exercise on macroinvertebrates and periphyton on the eight so-called "huge deltas"⁹ on the Costa Rican side of the river¹⁰. She scarcely got a mention in Mr. Loewenstein's presentation although, if there were a real case on harm to the San Juan, it is precisely on the evidence of impacts to aquatic flora and fauna from qualified experts that one would expect a case to be built. And yet, Dr. Rios was not even called to give live evidence, while Dr. Rios's conclusions were pointedly not put to Costa Rica's expert, Professor Cowx, this morning.

8. And, so far as concerns actual measurements and sampling from Nicaragua, that is it. Over the period of more than four years since works on the road commenced, Nicaragua has collected, or at least has submitted, virtually no hard data on impacts at all.

9. And it is useful to pause here, and to compare the evidence in the recent prior cases involving international watercourses — the *Gabčíkovo-Nagymaros Project* case and *Pulp Mills* before this Court, and the recent *Kishenganga* case before a seven-person Court of Arbitration, including one Member of this Court and two past Members.

10. In the *Gabčíkovo-Nagymaros Project* case¹¹, the Applicant submitted extensive evidence that implementation of the so-called Variant C was causing adverse impacts on river morphology,

⁷G. Mathias Kondolf, "Continued Impacts of Erosion from Rte. 1856, Costa Rica to the Rio San Juan, Nicaragua", 30 Oct. 2013, pp. 11-12. See also, CR/2015/8, p. 40 (Kondolf).

⁸G. Mathias Kondolf, "Comments on Costa Rican Submissions of November 2013", 6 Nov. 2013; CR 2015/8, p. 40 (Kondolf).

⁹Written Statement of Professor G. Mathias Kondolf, 16 Mar. 2015, para. 49.

¹⁰Dr Blanca Ríos Touma, "Ecological Impacts of the Route 1856 on the San Juan River, Nicaragua", July 2014; RN, Ann. 4.

¹¹*Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*, Judgment, I.C.J. Reports 1997, p. 7.

water quality, agriculture, fisheries and forestry, and so on¹². Ample evidence from sampling was submitted by Hungary, including, for example, evidence of fish mortality said to have resulted from adverse water quality changes in the Danube as a result of Variant C¹³.

11. Similarly, in *Pulp Mills*, the Court had before it extensive data from Argentina to support its claim that discharges from the mill at issue had resulted in adverse impacts upon water quality in the River Uruguay¹⁴.

12. The same applies to the *Kishenganga* case between Pakistan and India. Pakistan had carried out various sampling exercises in the river, identifying the precise species of flora and fauna to the Court of Arbitration, and it submitted expert evidence on how and why there would be fish mortality and various other forms of adverse impact on a whole range of identified species as a result of the damming of the river¹⁵.

13. And all that, of course, is entirely as would be expected, and indeed as is needed to make out a case that a given project risks causing or is likely to cause or is actually causing significant harm; and this is all the more so where the given project has been in existence for a number of years; four years, in this case.

14. To recall the passage from the ILC's Commentary that Professor Kohen took you to yesterday¹⁶, to be significant:

“The harm must lead to a real detrimental effect on matters such as, for example, human health, industry, property, environment or agriculture in other States. Such detrimental effects must be susceptible of being measured by factual and objective standards.”¹⁷

15. And yet there are no such measurements in this case. In marked contrast to the past cases, we have just the one INETER measurement that does not show any impact, we have the three muddy plume samples of Dr. Kondolf that do not show any impact and that Nicaragua

¹²See e.g., *Gabčíkovo-Nagymaros Project*, Reply of the Republic of Hungary, pp. 90-99, paras. 2.50-2.74.

¹³*Gabčíkovo-Nagymaros Project*, Reply of the Republic of Hungary, p. 92, para. 2.55.

¹⁴*Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgment, I.C.J. Reports 2010 (I), pp. 90 et seq., paras. 228 et seq.

¹⁵*Indus Waters Kishenganga Arbitration (Pakistan v. India)*, Final Award, 20 Dec. 2013, paras. 54-70, and 97-104.

¹⁶*CR 2015/11, pp. 46-47, para. 27 (Kohen)*.

¹⁷ILC, Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities, Commentary to Art. 2, para. (4); *Yearbook of the International Law Commission (YILC)*, 2001, Vol. II (2), p. 152.

apparently does not rely on, and we have the study of Dr. Rios on the carefully selected, so-called “huge deltas” which also seem to have fallen away from Nicaragua’s case.

16. Now, in the course of Nicaragua’s opening, there were various suggestions that data on actual impact could not fill the evidentiary gap — because of variability in the river flow or because of the absence of baseline data. You will recall there was a series of questions put to Professor Thorne on that this morning¹⁸. But such suggestions are both counter-intuitive as a general matter and, more specifically, inconsistent with the evidence and the past positions of Nicaragua.

17. Dr. Kondolf, in criticizing Costa Rica’s request to Nicaragua of 6 February 2013 to be allowed to conduct some sampling in the Rio San Juan¹⁹, explained in cross-examination what he considered a proper sampling exercise would look like — and we put this in tab 2 of your judges’ folder, it may even appear on the screen — and reading from approximately halfway down, one sees:

“Mr. KONDOLF: What you have to do instead — and this is very well spelled out in procedures developed by the United States Geological Survey and adopted, really, worldwide — you have to do what is called a depth integrated sample across the channel, so you measure at multiple verticals the entire water column, and you collect a sample from across the river, because there are huge differences in suspended sediment concentrations from the top of the water column to the bottom. And it can be across the river as well. And then, you take that sample, which could be — for a river like the Río San Juan — a dozen bottles or something, and then you analyse those to come up with your actual flow, your actual sediment flow.

Mr. WORDSWORTH: That is very helpful. So, you would have a way of getting reliable information in terms of impact on sediment load?

Mr. KONDOLF: Right, and from what I understand of your reading the Nicaraguan response, they did not specify exactly how it would be done but, presumably, if it were a joint study, that the experts on the two sides would design to do it correctly.

Mr. WORDSWORTH: Yes. But the point I am interested in, you have just said that there is a sort of sediment sampling that can usefully be done, you have just referred to some United States reference. That is correct, is it not?

Mr. KONDOLF: That is right.”²⁰

¹⁸CR 2015/12, pp. 30-33 (*Thorne and Reichler*).

¹⁹Note from the Minister for Foreign Affairs and Worship of Costa Rica to the Minister for Foreign Affairs of Nicaragua, ref. DMAM-063-13, 6 Feb. 2013; CMC, Ann. 46.

²⁰CR 2015/8, pp. 46-47 (*Kondolf and Wordsworth*).

18. So, it could be done, and we say that it should have been done — and that would also follow from what was said by Professor Thorne on this matter this morning²¹; but the simple point is that it has not been done.

19. Now, as so far as concerns the correspondence on joint sampling, one sees that in the event the Parties could not agree on a joint approach, not least because Nicaragua was insisting on the cessation of works on the road as a precondition. But that is irrelevant for present purposes. The point is that Nicaragua, acting alone on *its* river, did have a means of getting reliable data on impact on sediment load, and it has elected not to do this. Instead, it has elected to put forward a case on the basis of virtually no empirical evidence.

20. We have included the correspondence relevant to the proposed joint sampling exercise at tab 3 of your folder²², and we invite the Court to go through that in due course. For present purposes, it is sufficient to go to Nicaragua's letter of 30 August 2013²³ — which you will see at tab 4; I note that tab 4 is page 51 of the current judges' folder — and if I could ask you to turn to Nicaragua's letter, page 52, and then pick it up on page 53 in tab 4, halfway down the page. For present purposes, it is sufficient to see what Nicaragua was saying there, responding to Costa Rica's proposal that there be a twice monthly sampling of suspended sediment content in the river at six locations, with further sampling points after the bifurcation between the Lower San Juan and the Río Colorado²⁴. So, Nicaragua's response to that proposal: “Costa Rica distorts Nicaragua's position by alleging that Nicaragua has proposed ‘that sampling of the *River* take place

²¹*CR 2015/12, p. 33 (Thorne and Reichler).*

²²Letter from the Co-Agent of Costa Rica to the Registrar of the International Court of Justice, ref. ECRPB-013-2013, 7 Mar. 2013; CMCR, Ann. 49; letter from the Co-Agent of Costa Rica to the Registrar of the International Court of Justice, ref. ECRPB-26-13, 24 May 2013; CMCR, Ann. 52; letter from the Co-Agent of Costa Rica to the Registrar of the International Court of Justice, ref. ECRPB-31-13, 13 June 2013; CMCR, Ann. 53; letter from the Agent of Nicaragua to the Registrar of the International Court of Justice, ref. HOL-EMB-108, 14 June 2013; CMCR, Ann. 54; letter from the Co-Agent of Costa Rica to the Registrar of the International Court of Justice, ref. ECRPB-036-13, 24 June 2013; CMCR, Ann. 55; letter from the Co-Agent of Costa Rica to the Registrar of the International Court of Justice, ref. ECRPB-052-13, 7 Aug. 2013; CMCR, Ann. 59; letter from the Registrar of the International Court of Justice to the Agent of Costa Rica, ref. 142331, 8 Aug. 2013; CMCR, Ann. 60; letter from the Agent of Nicaragua to the Registrar of the International Court of Justice, ref. HOL-EMB-167, 30 Aug. 2013; CMCR, Ann. 64; letter from the Co-Agent of Costa Rica to the Registrar of the International Court of Justice, ref. ECRPB-63-2013, 27 Sep. 2013; CMCR, Ann. 65, judges' folder, tab 3.

²³Letter from the Agent of Nicaragua to the Registrar of the International Court of Justice, ref. HOL-EMB-167, 30 Aug. 2013; CMCR, Ann. 64, judges' folder, tab 4.

²⁴See letter from the Co-Agent of Costa Rica to the Registrar of the International Court of Justice, ref. ECRPB-013-2013, 7 Mar. 2013; CMCR, Ann. 49; and letter from the Co-Agent of Costa Rica to the Registrar of the International Court of Justice, ref. ECRPB-036-13, 24 June 2013; CMCR, Ann. 55, judges' folder, tab 3.

only after heavy rainfall and only where plumes of sediment seem to be coming from the southern bank'. As Nicaragua explained in its 14 June letter, sampling after rainfall events and in runoff plumes is necessary to measure the true impact of the road on the *River and* must therefore be included as *part of a larger joint sampling protocol*. Costa Rica's proposal that 'sampling of the waters of the San Juan River be taken twice a month' does not ensure sampling immediately after rainstorms or that plumes of sediment runoff from the road will be considered. It is the view of Nicaragua's technical experts that this would not 'permit sufficient data to be collected, to assess the situation of the river'.²⁵

21. And if you turn over the page in this letter, you will see in the first full paragraph that although Nicaragua was saying that it continues to favour joint monitoring of the river to determine the impacts of the road construction project, it was also saying — as it has stated previously — it considers a joint study to be feasible only if Costa Rica halts any further road construction activities pending the completion of the study²⁶.

22. In due course the Court can, but need not, judge for itself whether that was a reasonable pre-condition. The critical point is that Nicaragua had identified the measurements that it thought were appropriate — regular sampling plus sampling immediately after rainstorms and the like — and yet it has elected not to go ahead with that sampling.

23. The obvious inference is that Nicaragua came to the view that no amount of sampling, however close to the banks of the river, however close to the road, was going to show significant harm in terms of sediment concentration levels. And that is an inference that can safely be drawn by this Court in light of the absence of any other evidence of significant harm, such as harm to aquatic species in the river.

24. In any event, the basic point is that Nicaragua has made a claim on significant harm without the sampling and other data needed to back it up, and it follows that its claim must inevitably fail. Likewise, it has not put in any data that might support a case on risk of significant harm.

²⁵*Letter from the Agent of Nicaragua to the Registrar of the International Court of Justice, ref. HOL-EMB-167, 30 Aug. 2013; CMCR, Ann. 64, Judge's folders, tab. 4.*

²⁶*Ibid.*

25. I should also add that there is no need in this case for data from many years past to form a baseline²⁷. The relevant baseline would be provided by the series of measurements just upstream of the seriously eroding sites identified by Dr. Kondolf. The impact, relative to that baseline, would be identified by a series of measurements just below those sites, at such locations that Nicaragua might have chosen.

26. And Dr. Kondolf's evidence on the value of sampling, and Nicaragua's position in correspondence on the value of sampling, is consistent with the evidence just heard from Professor Thorne this morning, in cross-examination, and it is consistent also with the views of Ramsar: you will recall the report of April 2011 that Nicaragua did not see fit to annex to its pleadings either in this case or in the *Certain Activities* case, despite its manifest relevance²⁸.

27. The passage I have in mind on monthly monitoring of sediment is at paragraph 3 (b) of the recommendations: we put it in at tab 5 of the judge's folder; and that, in fact, is at page 59 of the judge's folder — the small number in the middle of the bottom of the page. There you see the recommendation: "Considering the nature of the project and the area of influence, we suggest incorporating the following variables into the Environmental Control and Supervision Programme to be implemented by the EPN during the project", and so on, and you see at (b): "Monthly monitoring of the concentration of suspended solids in water column in representative sections along the main course of the San Juan River."²⁹ Of course, this is with respect to Nicaragua's dredging activities, but the basic principle that monitoring is a means of showing impacts obviously applies to any anthropogenic impacts on the river. It may be that more than monthly monitoring would have been appropriate — and of course, Costa Rica was saying: "Let's have bi-monthly monitoring." Nicaragua would say we want to have monitoring by reference to what happens in specific places after rain fall — heavy rain fall and the like. The key point is: it was up to Nicaragua to develop the monitoring programme that it thought was suitable and that would

²⁷Cf. CR 2015/9, pp. 33-35 (Andrews), in response to a question from Judge Bhandari.

²⁸"Ramsar Advisory Mission Report No. 72", 18 Apr. 2011 (extract, English translation), p. 47, annexed to letter from Costa Rica to the ICJ, ref. ECPRB-062-2015, 17 Apr. 2015; Costa Rica's judges' folder for cross-examination of Professor G. Mathias Kondolf and Professor Edmund D. Andrews, 20 Apr. 2015, tab 2; judges' folder, tab 5.

²⁹*Ibid.*

provide evidence of actual impact before this Court. Nothing has stopped it from doing that. All the evidence points to the value of that and yet it has not done it.

B. The evidence of significant harm to the Lower San Juan

28. I turn then to the details of Nicaragua's case that sediment from the road is causing significant harm to Nicaragua through being deposited in the Lower San Juan, which appears ultimately to come down to a claim of significant harm to navigation.

29. The Court will recall that there were two limbs to this argument: first that the amounts being deposited in the delta area are higher in magnitude than Costa Rica allows for; and secondly it says, more than once, that context is everything — the claim here being that the Lower San Juan is already overloaded by sediment, and that any additional ton of sediment coming from the road causes significant harm because it adds to the sediment that Nicaragua is allegedly having to dredge³⁰.

30. I deal with these two limbs in turn.

(i) Evidence of sediment from the road (if any) being deposited in the Lower San Juan

31. As to the quantity of sediment from the road depositing in the area of the Lower San Juan, that is the first 5 to 6 km, the Court has from this morning heard the evidence of Professor Thorne.

32. There are two points here.

33. First, although notably no questions were put to Professor Thorne on this, Nicaragua's experts are dramatically overestimating the quantity of sediment coming from the road into the San Juan.

34. The great majority of Nicaragua's estimate of erosion comes from Dr. Kondolf's "17 areas of Severely Eroding Sites"³¹. He took the entire disturbed area of those sites, which he estimated to be 788,000 sq m, then subtracted a 10-m-wide roadbed, to which he applied a roadbed

³⁰CR 2015/10, p. 15, para. 14 (Reichler).

³¹"The Road", Written Statement of Professor G. Mathias Kondolf, 16 Mar. 2015, p. 8, table 1, line 1; see also G. Mathias Kondolf, "Erosion and Sediment Delivery to the Rio San Juan from Route 1856", July 2014; RN, Ann. 1, p. 62.

erosion rate³². He was left with 612,000 sq m³³: you may recall that is the figure that I referred Dr. Kondolf to in cross-examination. To the entirety of that 612,000 sq m, Nicaragua applies slope erosion rates. To 40 per cent of the area, it applies an erosion rate of 0.558 m per year; for 60 per cent, it applies a much lower rate of hillslope surface erosion, of 0.03-0.06 m per year³⁴. Professor Kondolf confirmed in re-examination that all of the disturbed area, other than the roadbed, was treated as constituting slopes³⁵.

35. And this matters because, in reality only **261,000** sq m of the “Severely Eroding Sites” that are made up of slopes. Costa Rica’s experts know this because they have walked the length of the road, identifying and actually measuring the slopes, including with a hand-held electronic range finder³⁶. The rest are flat areas where there has been some disturbance, including because materials were stored there or undergrowth was cleared for access and other necessities of construction. Professor Kondolf accepted that if he had overestimated slopes then “that would be a source of error”³⁷. In fact, there has been such an overestimate of slopes, and this results in an overall overestimation of erosion from Dr. Kondolf’s severely eroding sites by a factor of about 2.5.

36. And that of course is the most significant factor in Nicaragua’s overestimation of erosion from the road, but there are others, and we refer you to the evidence attached to Costa Rica’s Rejoinder. As an example, Nicaragua’s estimate includes erosion from 332 km of “access roads” to the road³⁸, without establishing how or to what (if any) extent such access roads — some of which are up to 50 km away from the San Juan River³⁹ — are somehow contributing to the river.

³²CR 2015/8, p. 65 (Kondolf); see also “The Road”, Written Statement of Professor G. Mathias Kondolf, 16 Mar. 2015, para. 14; see also p. 8, table 1, line 2.

³³CR 2015/8, p. 65 (Wordsworth).

³⁴“The Road”, Written Statement of Professor G. Mathias Kondolf, 16 Mar. 2015, paras. 14-15.

³⁵CR 2015/9, p. 13 (Kondolf).

³⁶See Professor Colin Thorne, “Assessment of the Impact of the Construction of the Border Road in Costa Rica on the San Juan River: Reply Report”, Feb. 2015; RCR, App. A, para. 4.23, pp. 26-27; A. Mende, “Inventory of Slopes and Water Courses related to the Border Road No 1856 between Mojón II and Delta Costa Rica: Second Report”, Dec. 2014; RCR, Ann. 3, pp. 77-78.

³⁷CR 2015/8, p. 67 (Kondolf).

³⁸“The Road”, Written Statement of Professor G. Mathias Kondolf, 16 March 2015, para. 21; see also G. Mathias Kondolf, “Erosion and Sediment Delivery to the Rio San Juan from Route 1856”, July 2014; RN, Ann. 1, p. 61.

³⁹As indicated on CMCR, sketch-map 4, p. 46; for example, the access road leading to Puerto Viejo de Sarapiquí is further than 50 km from the San Juan River.

37. Secondly, there is the quite separate point that there is no evidence that coarse sediment from the road is in fact reaching the Lower San Juan in the quantities that Nicaragua alleges. As follows from what Professor Thorne said this morning, coarse sediment from the road is likely to be aggrading in higher stretches of the river, in what he called “response reaches” and shoals⁴⁰. That is entirely as would be expected given that the delta area is approximately 60 km downstream of the reach where one finds the bulk of Dr. Kondolf’s seriously eroding sites.

38. The Court will also recall that, even if one were to take Nicaragua’s figures on the sediment coming from the road, and the sediment that is being deposited in the Lower San Juan, one only gets a tiny fraction of what is in fact being dredged by Nicaragua in the delta area: one gets the figure of 0.5 to 2 per cent by reference to the quantities of sediment calculated, on various assumptions, at page 28 of Dr. Andrews’ July 2014 report⁴¹, and those quantities, I should add, were not updated in his Summary of March 2015.

39. Now, Mr. Reichler has had a go at making this fraction look higher — by upping the amount of sediment from the road that is said to be deposited in the Lower San Juan, and by only taking the amounts dredged by Nicaragua in the delta area for 2014, which is half of what was dredged in 2013⁴². And by this means, he said that the correct figure for the percentage of what was dredged was 8.5 per cent⁴³, not the 0.5 to 2 per cent that one gets from reading Nicaragua’s expert reports.

40. I was also taken to task for not putting to Dr. Andrews his “more recent evidence, based on ICE’s updated calculations”⁴⁴, which in fact was a reference to his oral evidence, where Dr. Andrews was saying that ICE, in its latest figures, is estimating that 20 per cent of the

⁴⁰*CR 2015/12, pp. 39-41, 41-45 (Thorne and Reichler), p. 49 (Thorne and Wordsworth).*

⁴¹Taking the range of 1,390 cubic metres to 2,700 cubic metres for relatively coarse sediment being transported into the Lower San Juan from the road in Professor Edmund D. Andrews, “An Evaluation of the Methods, Calculations, and Conclusions Provided by Costa Rica regarding the Yield and Transport of Sediment in the Río San Juan Basin”, 25 July 2014; RN, Ann. 3, p. 28, and using the figures for the annual amounts dredged for 2012-2014 in “Project 262-09: Improvement of Navigation in the San Juan de Nicaragua River: Physical-Financial Progress Report Corresponding to 2014”, EPN 2014 Annual Report, 2015, p. 20, Ann. 1 to letter from Nicaragua to the ICJ, ref. HOL-EMB-0035, 9 Mar. 2015.

⁴²See “Project 262-09: Improvement of Navigation in the San Juan de Nicaragua River: Physical-Financial Progress Report Corresponding to 2014”, EPN 2014 Annual Report, 2015, p. 20, Ann. 1 to letter from Nicaragua to the ICJ, ref. HOL-EMB-0035, 9 Mar. 2015.

⁴³CR 2015/10, p. 13, para. 15 (Reichler).

⁴⁴*Ibid.*, p. 23, para. 41 (Reichler).

San Juan's bed load and 16 per cent of the suspended sediment load goes into the Lower San Juan, not 10 per cent as before⁴⁵.

41. While there is something slightly surreal about Nicaragua's experts suddenly adopting ICE estimates — in a situation where Nicaragua could readily be providing the hard data that would show the actual division of flow and sediment between the Lower San Juan and the Río Colorado — this does not in any event make any material difference. We understand that a recalculation from Dr. Andrews would lead to the 7,600 ton figure that Mr. Reichler referred to on Tuesday⁴⁶, that is 4,550 cubic metres. That is still a tiny fraction of what is being dredged by Nicaragua in the delta area.

42. How, then, does Mr. Reichler get from the 7,600 ton figure to his 22,000 ton figure, which is said to represent “approximately 8.5 per cent of the amount of sediment that Nicaragua has been required, and able, to dredge in the past year”⁴⁷?

43. There are two aspects to this. First, Nicaragua ignores the dredging of the preceding year, as to which the 22,000 ton figure would have given a percentage of total dredging of around 4 per cent. But, secondly, and more importantly, this new 22,000 ton figure includes the suspended sediment from the road that is said to reach the Lower San Juan, with the suggestion being that this forms part of the material that Nicaragua is dredging in the delta area of the Lower San Juan⁴⁸.

44. That, however, is inconsistent with all the evidence. Nicaragua is dredging only in the *first* 6 km of the Lower San Juan⁴⁹. Dr. Andrews says that the suspended sediment will remain suspended until the fresh river water begins to mix with the salty ocean water, which he takes as the *last* 6 km of the Lower San Juan — 25 km or so down towards the Caribbean Sea⁵⁰. There is no suggestion in Nicaragua's evidence that it has been dredging a navigation channel in that lower

⁴⁵CR 2015/9, p. 27 (Andrews). See Costa Rican Institute of Electricity (ICE), SBU Projects and Associated Services, Centre for Basic Engineering Studies, Department of Hydrology, *Second Report on Hydrology and Sediments for the Costa Rican River Basins draining to the San Juan River*, Dec. 2014, RCR, Ann. 5, pp. 28-30.

⁴⁶CR 2015/10, p. 13, para. 14 (Reichler).

⁴⁷CR 2015/10, p. 13, para. 15 (Reichler).

⁴⁸*Ibid.*, p. 13, para. 15 (Reichler).

⁴⁹See “Project 262-09: Improvement of Navigation in the San Juan de Nicaragua River: Physical-Financial Progress Report Corresponding to 2014”, EPN 2014 Annual Report, 2015, pp. 20 and 36-41; Ann. 1 to letter from Nicaragua to the ICJ, ref. HOL-EMB-0035, 9 Mar. 2015.

⁵⁰*The Road*, Written Statement of Professor Edmund D. Andrews, 15 Mar. 2015, para. 27.

section in the years since the construction of the road commenced, save, of course, when it comes to dredging *caños* on Costa Rican territory. It follows that there is no basis at all for the new assertion that the amount of sediment coming from the road that is allegedly being dredged can be trebled by reference to the suspended sediment.

45. And, even if we were to take as correct Mr. Reichler's figure of 7,600 tons of coarse sediment coming from the road and allegedly being dredged by Nicaragua in the Lower San Juan, we are left with the following comparison.

46. For 2012, the dredging was 176,918.90 cubic metres, as to which the percentage figure of sediment from the road would be 2.57 per cent. The dredging was much higher in 2013, 304,490.84 cubic metres, so the percentage would be 1.49 per cent. And then, in 2014, less dredging, so the percentage is 2.88 per cent⁵¹.

(ii) Alleged significance of the amount said to be dredged

47. Against this backdrop, I move on to Nicaragua's case on significance and there are four obvious points. First, despite the repeated if notably defensive refrain that magnitude is not to be confused with significance, the fact that, even on Nicaragua's best case, the sediment deposited is only a tiny fraction of that which is dredged, speaks for itself.

48. The same applies to the broader, and the all-the-more relevant point, that the sediment coming from the road represents only a tiny fraction of the total annual sediment load of the Río San Juan. On Costa Rica's figures, it is 0.6 per cent; on Nicaragua's, it is in the range 1-2 per cent⁵².

49. Secondly, it is not as if that tiny fraction takes on a particular significance because this is a tipping point case. That was confirmed by Dr. Andrews in cross-examination. You may recall the question: "Right. You are not suggesting, are you, that the extra 0.5 per cent or 2 per cent, that

⁵¹*Comparison of Nicaragua's Estimate of Amount of Sediment from Road and Amount Dredged 2012-2014*, judges' folder, tab 6.

⁵²RCR, paras. 2.64-2.65, referring to Professor Colin Thorne, *Assessment of the Impact of the Construction of the Border Road in Costa Rica on the San Juan River: Reply Report*, Feb. 2015; RCR, App. A, paras. 4.93 and 4.94, p. 62; see also *The Road*, Written Statement of Professor Colin Thorne, Mar. 2015, paras. 3.21 (c) and 3.23 and *The Road*, Written Statement of Professor G. Mathias Kondolf, 16 Mar. 2015, para. 22 and table, p. 8.

you say comes from the road, creates a sort of tipping point? That somehow this is the straw that breaks the camel's back, are you?" Answer: "No."⁵³

50. Thirdly, this is not a case where a claimant can point to an absolute standard that is being breached, even though only a relatively small quantity of material is being added to a given waterbody. As to this, the various references that Mr. Reichler made to United States and European standards on pollution are obviously inapposite⁵⁴, and likewise his reference to the phosphorous limits that the Court was examining in the *Pulp Mills* case⁵⁵. There is no relevant standard that Nicaragua can here point to.

51. Take the United States Clean Water Act régime that Mr. Reichler referred you to⁵⁶. This is dependent on the relevant authority setting a total maximum daily load of sediment for a given listed waterbody, which can be a reach of a given river, and not the river as a whole⁵⁷. Nicaragua has not done that for the Río San Juan, or any reach of the river, whether upstream or downstream of the delta.

(a) In short, we have no idea what that total maximum daily load would be, and in this respect it is to be recalled that sediment is a "vital natural component of waterbodies and the uses they support", that is a quote from the United States Environmental Protection Agency (EPA) Protocol that Nicaragua referred to on Tuesday⁵⁸. And you may recall that Professor Cowx said something to similar effect this morning in response to a question from Judge Bhandari, when he focused on the nutrients that are contained in sediment⁵⁹. Now, the EPA document also notes that "sediments can impair designated uses"⁶⁰, but we have no idea where the

⁵³CR 2015/9, p. 32 (Wordsworth; Andrews).

⁵⁴CR 2015/10, p. 19, paras. 29-30 (Reichler).

⁵⁵*Ibid.*, pp. 20-21, paras. 31-34 (Reichler).

⁵⁶*Ibid.*, p. 19, para. 29 (Reichler).

⁵⁷United States Environmental Protection Agency (EPA), "Protocol for Developing Sediment TMDLs", Oct. 1999, pp. 3-4, available at <http://www.epa.gov/owow/tmdl/sediment/pdf/sediment.pdf>, referred to at CR 2015/10, p. 19, para. 29 (Reichler).

⁵⁸CR 2015/10, p. 19, fn. 45 (Reichler).

⁵⁹CR 2015/12, p. 19 (Cowx).

⁶⁰United States Environmental Protection Agency (EPA), "Protocol for Developing Sediment TMDLs", Oct. 1999, p. 2-1, available at <http://www.epa.gov/owow/tmdl/sediment/pdf/sediment.pdf>.

sediment balance would correctly be struck in the current case if the United States methodology were to be applied.

(b) We likewise can have no idea whether any sediment coming from the road would be in excess of any hypothetical total maximum daily load. For, not only has Nicaragua not set the relevant standards, it has not carried out the relevant measurements.

52. And there are indeed, as Nicaragua says, European Union environmental quality standards that identify different pollutants and the level of concentration that must not be exceeded for a given pollutant⁶¹. But quite why these are relevant to the current case, is less than clear. They tell one nothing whatsoever about whether sediment from the road could correctly be regarded as a pollutant, as Nicaragua implies, without one single sample to back up its case. The same applies so far as concerns Nicaragua's reference to the phosphorous limit in the *Pulp Mills* case.

53. Finally, the case on significance takes no account of the natural variability in the flow rate and sediment content of the river. Because of this variability, which is accepted and referred to by all the experts⁶², the total amount of sediment that will in fact enter the Lower San Juan will vary very substantially from year to year. In the context of that natural variability in sediment load, the small quantities of coarse sediment that may reach the Lower San Juan from the road are once again precisely insignificant.

54. And these four points dispose of the case on significance. The Court is concerned with, at most, a tiny fraction of the natural sediment load, in a context of high natural variability, where it is not said that there is a tipping point, and where there is no relevant standard that is said to be breached.

⁶¹See the Water Framework Directive, Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for Community action in the field of water policy, OJ L 327, 22/12/2000, p. 1; Directive 2008/105/EC of the European Parliament and of the Council of 16 December 2008 on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending Directive 2000/60/EC of the European Parliament and of the Council, OJ L 348, 24/12/2008, p. 84; and Directive 2013/39/EU of the European Parliament and of the Council of 12 Aug. 2013 amending Directives 2000/60/EC and 2008/105/EC as regards priority substances in the field of water policy, OJ L 226, 24/8/2013, p. 1, referred to at CR 2015/10, pp. 19-20, fns. 46-47 (Reichler).

⁶²E.g., *The Road*, Written Statement of Professor Colin Thorne, Mar. 2015, para. 3.20 and Professor Colin Thorne, *Assessment of the Impact of the Construction of the Border Road in Costa Rica on the San Juan River: Reply Report*, Feb. 2015; RCR App. A, para. 4.125 referring to Professor Allan Astorga Gättgens, *Extraordinary sediment inputs due to exceptional events on the San Juan River*, Dec. 2014; RCR, Ann. 10; CR 2015/9, p. 30 (Andrews); CR 2015/8, p. 41 (Kondolf); **CR 2015/12, pp. 30-33 (Thorne)**.

55. In addition, as to Nicaragua's "it all depends on the context" argument, we note that this is predicated on a false premise, which is that sediment from the road is having to be dredged from what is said to be an already over-sedimented river⁶³.

56. There are two points to note. First, the case on significance is predicated on there being a need to dredge the quantities that Nicaragua is in fact dredging. That was the thrust of Mr. Reichler's propositions 5, 6 and 7, which were portrayed as common ground between the experts⁶⁴. But of course, they are not, that was scarcely a fair portrayal of Professor Thorne's evidence, which is that the current dredging programme is "having the effect of lowering the bed slope and consequently robbing the Lower Río San Juan of some of the very small amount of transport capacity it has"⁶⁵. And that was his evidence in oral evidence last week. And, you have just heard him further on the subject of Nicaragua's dredging programme — current dredging programme⁶⁶. The correct position is that the current dredging programme is not a necessity; it is making the situation worse. If anything is needed, it is a new programme, arrived at following notification, EIA and consultation. This is a point we will be returning to on Tuesday of next week — in the second round in the *Certain Activities* case.

57. Secondly, the case on significance is also predicated on the proposition that sediment comes from the road and is deposited along sandbars in the delta area that is being dredged by Nicaragua⁶⁷. In so far as there is evidence for that, it is all based on the assumption that coarse sediment from the road is reaching the delta area in measurable quantities, as to which there is no empirical support.

58. The answer, we were told on Tuesday, is to look at Professor Thorne's views, the reference being to his 2011 report in *Certain Activities*⁶⁸, of course made before the construction of

⁶³CR 2015/10, p. 23, para. 42 (Reichler).

⁶⁴*Ibid.*, p. 12, paras. 10-11 (Reichler).

⁶⁵CR 2015/3, p. 43 (Thorne), and see also *Certain Activities*, Written Statement of Professor Colin Thorne, Mar. 2015, para. 4.16.

⁶⁶CR 2015/12, pp. 45-46 (*Thorne and Reichler*), pp. 50-51 (*Thorne and Wordsworth*), pp. 51-53 (*Thorne and Tomka*).

⁶⁷CR 2015/10, p. 17, para. 23 (Reichler).

⁶⁸*Ibid.*

the road had even commenced. Unsurprisingly, he does not there give evidence as to where sediment from the road may or may not be deposited.

59. Given that half a sentence from the passage at issue of Professor Thorne's 2011 report was referred to not once but four times in Mr. Reichler's speech, it may be useful for the Court to see what Professor Thorne was in fact saying, in its correct context — and we have included this at tab 7 of the judges' folder. And, if I can ask you to turn to page 63 of the judges' folder, and you will also see up on the screen, the relevant passage.

60. Now, my friend Mr. Reichler read part of the top paragraph here, in his cross-examination of Professor Thorne this morning⁶⁹. So I will just continue where he left off. Professor Thorne continued, having talked about the deposition in the Lower San Juan,

“This too is entirely natural and results from the location of the Río San Juan branch north of the Hess-Santa Elena fault, in an area characterized by relatively high relief and an uplifting tendency. It follows from this assessment that sediment accumulation in the Río San Juan downstream of the delta is not caused by excessive concentrations of sediment in the San Carlos and Sarapiquí, or indeed any of the Costa Rican tributaries, but is the consequence of natural geological controls in the neotectonic influences. The scale and power of the natural phenomena responsible for conditioning fluvial processes and controlling morphological evolution in the Río San Juan and Río Colorado are such that attempting to reverse their effects is likely to be futile. The geology in neotectonics of the region will continue affecting this deltaic system for centuries, with or without the dredging.”⁷⁰

61. Now, of course this cannot be taken as suggesting that sediment from the road is impacting in any significant way on the delta area: quite the opposite. And, the Court will also recall the position at the delta as at 2008, that is long before construction of the road, as portrayed in paragraph 6 of the summary of Professor Van Rhee's evidence: that is, a sediment problem for navigation in the dry season, that was predicted to get worse⁷¹.

62. In short, there is a long-term phenomenon of deposition that has nothing whatsoever to do with the road. That, of itself, shows that any sediment coming from the road is not significant. It is having no long-term impacts, and it is not impacting in any material way on the long-term

⁶⁹*CR 2015/12, p. 39 (Reichler).*

⁷⁰Professor Colin Thorne, “Assessment of the physical impact of works carried out by Nicaragua since October 2010 on the geomorphology, hydrology and sediment dynamics of the San Juan River and the environmental impacts on Costa Rican territory”, *Certain Activities*; MCR, App. 1, p. II-27; judges' folder, tab 7, p. 63.

⁷¹*Certain Activities*, Written Statement of Professor Cornelis Van Rhee, 15 Mar. 2015, para. 6.

phenomenon of sediment deposition in the Lower San Juan. And indeed, Nicaragua does not suggest otherwise.

63. And, if coarse sediment from the road is currently reaching the delta area, then it may well be that it is settling in the channel that Nicaragua has been dredging, which is causing an unnatural, lower velocity reach in which sediment is being deposited in very large quantities. But even if that could be established by Nicaragua, it would tell one nothing about whether any sediment from the road — which is of course a tiny fraction of the sediment anyway flowing into the delta area — might conceivably have had any impact on navigation if it had been allowed to settle naturally.

64. I should finally note that it is incorrect to portray the Lower San Juan as an “over-sedimented river”⁷² — again, Professor Thorne gave evidence on this matter this morning⁷³. It is a river with a high sediment load that is evolving in a certain direction as a result of natural phenomena⁷⁴. And the assertion that we heard on Tuesday from Nicaragua, that the dredging of sand deposited in the delta area is helpful to the wetlands downstream merely depends on taking completely out of context the views of Professor Thorne⁷⁵.

65. Mr. President, that concludes my remarks, and I ask you to hand the floor to Dr. Parlett, to continue with our submissions on absence of significant impact.

Le PRESIDENT : Merci, Monsieur Wordsworth. Je donne maintenant la parole à Mme Parlett.

Ms PARLETT:

⁷²CR 2015/10, p. 23, para. 42 (Reichler).

⁷³CR 2015/12, pp. 50-51 (Thorne).

⁷⁴Professor Colin Thorne, “Assessment of the physical impact of works carried out by Nicaragua since October 2010 on the geomorphology, hydrology and sediment dynamics of the San Juan River and the environmental impacts on Costa Rican territory”, *Certain Activities*; MCR, App. 1, p. II-27.

⁷⁵CR 2015/3, pp. 43-44 (Thorne).

**THE ABSENCE OF SIGNIFICANT HARM — II AND COSTA RICA’S COMPLIANCE
WITH THE ENVIRONMENTAL PROTECTION RÉGIME**

A. Introduction

1. Mr. President, Members of the Court, this afternoon I will complete Costa Rica’s case on the evidence of significant harm and significant risk, and then I will shift gear to address Nicaragua’s case on breaches of the applicable environmental law régime.

B. No evidence of adverse impact on aquatic ecology

(1) “[L]ack of data on fish impacts”⁷⁶

2. Nicaragua claims that the road is causing significant harm to fish, and claims compensation for losses relating to fishing⁷⁷. Its case on fish collapsed this week. I have six points to make about fish.

3. One: Nicaragua presented no evidence of the impact of the road on fish in the San Juan: no evidence of dead fish, no evidence of sick fish, not even evidence of fewer fish. Nicaragua’s only expert to give evidence to you on impacts to fish said on Tuesday: “there is a lack of data on fish impacts, I agree”⁷⁸.

4. Two: remarkably, Nicaragua did not present any evidence of what species of fish inhabit the relevant part of the Río San Juan. Professor Kondolf was asked on Monday “you do not actually know what specific fish species inhabit this part of the river?”⁷⁹ His answer: “That is correct.”⁸⁰ This morning, *Mr.* Loewenstein confirmed with Professor Cowx, the only expert on fisheries put forward by either Party in this case, that no specific studies of fish have been done on the San Juan⁸¹.

5. Three: data on the species of fish that inhabit this part of the river, and data about their sensitivity to sediment, are essential to measure any impact of the road on fish. This morning,

⁷⁶CR 2015/8, p. 44 (Kondolf).

⁷⁷MN, paras. 3.93 and 6.33.

⁷⁸CR 2015/8, p. 44 (Kondolf).

⁷⁹*Ibid.*, p. 53 (Wordsworth).

⁸⁰*Ibid.*, p. 53 (Kondolf).

⁸¹CR 2015/12, p. 14 (Cowx).

Professor Cowx confirmed under cross-examination that whether fish are vulnerable to impacts associated with sediment has to be studied on a species by species basis⁸². And although he is not an expert in fish, Professor Kondolf also told you: “if we had more information about the specific fish species that were in the river, and if there were some studies of their sensitivity to suspended sediment, then we could have a more informed assessment of the likely impact”⁸³.

6. Quite. In 2013 you gave Nicaragua fair warning that any claim about impact on species in the river would necessarily require evidence — at the very least, evidence of species, and at the very least, an explanation of how the road could endanger them. In your Order on Provisional Measures, you noted that “with respect to the alleged effect on the ecosystem including individual species in the river’s wetlands, the Court finds that Nicaragua has not explained how the road works could endanger such species, and that it has not identified with precision which species are likely to be affected”⁸⁴. It is Nicaragua’s river. Nicaragua could have collected evidence of species, and evidence of impact, if there were any. It has had more than four years to do so. It has not.

7. Four: any fish in this part of the river *must* be tolerant to high levels of sediment and of large influxes in that sediment. When large tributaries flow into the San Juan, their flow comes with high levels of sediment. As you know, the only measurements of suspended sediment load on the San Juan River that Nicaragua has put forward are the measurements of INETER; you have now seen them several times⁸⁵ and they were mentioned again this morning. Those measurements, for what they are worth, show a dramatic increase in suspended sediment levels in the San Juan before and after the confluence of the San Carlos River: upstream of the San Carlos River, the suspended sediment is about 1,000 tons per day; immediately downstream of the San Carlos, the suspended sediment is about 1,700 tons per day⁸⁶. And there is no suggestion that the sudden

⁸²*CR 2015/12, p. 14 (Cowx)*.

⁸³*Ibid.*, p. 54 (Kondolf).

⁸⁴*Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), Provisional Measures, Order of 13 December 2013, I.C.J. Reports 2013, p. 407, para. 34.*

⁸⁵*Certain Activities*, INETER, “Summary of Measurement of liquid and suspended solids content during the years 2006, 2011, 2012”, 26 June 2012, CMN, Ann. 16.

⁸⁶*Ibid.*, table No. 2, p. 304.

increase in sediment at that point leads to any impacts on fish⁸⁷. No dead fish, no sick fish, not even fewer fish.

8. So Professor Kondolf could not disagree with the proposition that fish in the San Juan are tolerant to high levels of suspended sediment; what is more, he even said that they would benefit from it. He was asked: “You do accept, don’t you, that various species of fish in the catchment area positively flourish in environments with high levels of suspended sediment?”⁸⁸ His answer: “I think that there are a number of fish that are tolerant to high levels of suspended sediment and there are some fish that probably benefit from [turbidity⁸⁹] in terms of being less visible to predators or something like that”⁹⁰. You have just heard evidence from Professor Cowx, an expert in fish and aquatic ecology. He confirms that “it can be inferred that fish fauna in the San Juan are well adapted . . . to variable conditions, in particular with respect to sediment loads and concentration”⁹¹, and he also said they could in fact benefit from conditions of high suspended sediment concentrations and turbidity⁹². Professor Cowx confirmed this evidence to you this morning. He told you that it was unlikely that fish in the San Juan would suffer adverse impacts from elevated levels of sediment and that it was highly likely that they would be tolerant to sediment and adapted to conditions of high levels of sediment⁹³. He also confirmed, in response to a question from Judge Bhandari, that sediment brings with it nutrients which build up the algae and macroinvertebrate populations and those populations can have a positive effect on fish⁹⁴.

9. Five: Nicaragua’s claim of significance with respect to fish stands and falls on the evidence of impact. That impact could only be assessed by data. But Professor Kondolf does not agree. He told you not to “confuse lack of data with lack of impact”⁹⁵. That might appear a

⁸⁷CR 2015/8, p. 52 (Wordsworth and Kondolf).

⁸⁸*Ibid.*, p. 53 (Wordsworth).

⁸⁹Uncorrected transcript records “turbidity”.

⁹⁰CR 2015/8, p. 53 (Kondolf).

⁹¹Professor Ian G. Cowx, Written Statement, Mar. 2015, para. 9.

⁹²*Ibid.*, para. 8.

⁹³CR 2015/12, p. 16 (Cowx).

⁹⁴CR 2015/12, p. 19 (Cowx).

⁹⁵CR 2015/8, p. 44 (Kondolf).

surprising thing for an independent expert to say, and one notes that it then featured as a mainstay of Mr. Reichler's submissions on Tuesday⁹⁶.

10. Professor Kondolf did try to convince you that there remained a chance of some kind of impact on fish. He said: "We can certainly point to the probability of adverse impact on fish" even though he said, "we lack specific data for the Rio San Juan"⁹⁷. Probability. What kind of probability? Well, apparently not one that he could assign a percentage to⁹⁸. And how can a broad statement be made as to probability without even a prior identification of potentially impacted species? So risk that cannot even be identified at 1 per cent. Risk that is not measureable.

11. Nicaragua's counsel changed tack on Tuesday, attempting — at the last gasp — to refashion its case on significant harm to fish into a case on EIA⁹⁹. That is frankly absurd. Nicaragua has brought this case on the basis of significant harm. It is the Applicant.

12. But anyway, and this is my sixth point: Nicaragua's case on EIA with respect to fish is fundamentally flawed. Mr. Loewenstein told you there was a "risk" of harm to fish¹⁰⁰. But there is no basis for that. The fish in this part of the river are not impacted by a 70 per cent increase in the suspended sediment load when the San Carlos flows to the San Juan. If they are not harmed by a 70 per cent increase in suspended sediment load, how could there be a risk of harm from an increase that is — taking Nicaragua's case at its highest — 3 per cent?

13. Mr. Loewenstein also said that Costa Rica should have addressed any risk of harm to fish by finding out "whether the fish in the relevant part of the river are sensitive to sediment, and if so, at what levels"¹⁰¹. Could it?

14. In fact — and this is supported by actual evidence — Costa Rican scientists asked Nicaragua for access to the river to carry out studies and Nicaragua refused¹⁰².

⁹⁶CR 2015/10, p. 14, para. 17; p 15, para. 19; p. 18, para. 27; p. 23, para. 43 (Reichler). See also CR 2015/10, p. 45, para. 48; p. 46, para. 52; p. 47, para. 55 (McCaffrey).

⁹⁷CR 2015/8, p. 53 (Kondolf).

⁹⁸*Ibid.*, p. 54 (Kondolf).

⁹⁹CR 2015/10, pp. 29-31, paras. 18-25 (Loewenstein).

¹⁰⁰*Ibid.*, p. 30, para. 20 (Loewenstein).

¹⁰¹CR 2015/10, p. 30, para. 20 (Loewenstein).

15. Nicaragua is now saying that Costa Rica has breached international law by failing to study the species and their susceptibility to sediment on the river, yet when Costa Rica asked to carry out scientific studies on the San Juan River — for this very purpose — Nicaragua refused. The flaws in Nicaragua’s new argument are so apparent that I need not say more.

(2) Impact on aquatic organisms and water quality

16. I turn then to Nicaragua’s claim of significant harm in terms of impact on aquatic organisms and water quality.

(i) Ríos Samples

17. Nicaragua has relied on a report by Dr. Blanca Ríos, an expert in aquatic ecology¹⁰³. Nicaragua did not present Dr. Ríos to give live evidence to the Court, but she did take actual samples from deltas on the river, and because there is a dearth of actual data provided by Nicaragua in this case, I will address her study. But I have only three points.

18. One: Dr. Ríos took samples from eight deltas on the Costa Rican side of the river, and eight on the Nicaraguan side, and she compared them for taxa richness and abundance, for macroinvertebrates and periphyton¹⁰⁴. She did not sample anywhere else on the river; she did not sample upstream and downstream from the deltas, either in the tributaries or on the river. She assumed that deltas on the Costa Rican side were impacted by the road and deltas on the Nicaraguan side were not impacted by the road. Her study could only show impact — if there were any — at the micro level, on the deltas on the Costa Rican bank.

19. I note here that Professor Kondolf told you that you need gravel deposits to take samples of macroinvertebrates, suggesting to you that the deltas were the only place where samples could be taken, although he also conceded that macroinvertebrates would be found on the bed of the

¹⁰²Centro Científico Tropical (CCT) *Environmental Diagnostic Assessment EDA*, *Route 1856 Project — Ecological Component*, Nov. 2013, CMCR, Ann. 10, p. 513 (last paragraph) and p. 519, para. 2.7; and Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project — EDA Ecological Component*, Jan. 2015, RCR, Ann. 14, p. 456, para. 2.6. See also Note from the Minister for Foreign Affairs of Nicaragua to the Minister for Foreign Affairs and Worship of Costa Rica, ref. MRE/DM-AJ/129/03/13, 5 Mar. 2013, CMCR, Ann. 48, p. 229 (rejecting Costa Rican navigation on the San Juan River “for scientific purposes”).

¹⁰³RN, para. 2.83, referring to Dr. Blanca Ríos Touma, “Ecological Impacts of the Route 1856 on the San Juan River, Nicaragua”, July 2014, RN, Ann. 4.

¹⁰⁴Dr Blanca Ríos Touma, “Ecological Impacts of the Route 1856 on the San Juan River, Nicaragua”, July 2014, RN, Ann. 4, pp. 251-252.

river¹⁰⁵. With all due respect to Professor Kondolf, there are many places where one could sample for macroinvertebrates. Professor Kondolf is not an expert in aquatic ecology. Professor Cowx is, and his evidence is that Dr. Ríos could, and should, have sampled upstream on the river, and downstream on the river, or upstream in the tributaries, then downstream of the tributaries¹⁰⁶. You also have Professor Cowx's evidence that alternative sampling methods could have been used for the bed if the river was deep¹⁰⁷. And Professor Cowx is the only expert qualified in aquatic ecology who gave live evidence to you.

20. Two: Dr. Ríos' own conclusions were very confined. She said that differences in these substances "can have significant effects on the ecosystem"¹⁰⁸ — a very general conclusion indeed. She noted differences "in the impacted sites" — that is, on the deltas¹⁰⁹. She did not conclude that the road caused harm to "the ecological health of the River"¹¹⁰ — a conclusion that Nicaragua attributed to her. Nor did she conclude that "[t]he Road's contribution of sediment to the Rio San Juan is causing environmental damage by adversely impacting aquatic life and water quality"¹¹¹ — a conclusion Professor Kondolf attributed to her.

21. Three: the results of Dr. Ríos's study cannot be relied upon. Professor Kondolf confirmed on Tuesday that taxa richness and abundance would be influenced by several factors, including the size of the catchment area of the stream draining to the delta¹¹². Six of the eight deltas on the Costa Rican side sampled by Dr. Ríos had smaller catchment areas than the deltas to which they were compared on the Nicaraguan side¹¹³. Dr. Ríos did not control for the size of the

¹⁰⁵CR 2015/8, p. 56 (Kondolf).

¹⁰⁶Professor Ian Cowx, *Independent Expert Report concerning Evidence of Impacts on the Aquatic Ecology of the San Juan River, Nicaragua, due to construction of Route 1856 in Costa Rica*, 11 Dec. 2014, RCR, Ann. 2, pp. 51-52.

¹⁰⁷*Ibid.*, p. 52.

¹⁰⁸Dr Blanca Ríos Touma, "Ecological Impacts of the Route 1856 on the San Juan River, Nicaragua", July 2014, RN, Ann. 4, p. 262.

¹⁰⁹Dr Blanca Ríos Touma, "Ecological Impacts of the Route 1856 on the San Juan River, Nicaragua", July 2014, RN, Ann. 4, p. 264.

¹¹⁰Cf. RN, para. 2.83.

¹¹¹Written Statement of Professor G. Mathias Kondolf, 16 Mar. 2015, para. 52.

¹¹²CR 2015/8, p. 57 (Kondolf).

¹¹³See Dr. Blanca Ríos Touma, "Ecological Impacts of the Route 1856 on the San Juan River, Nicaragua", July 2014, RN, Ann. 4, p. 253, Table 1, column 4 (paired deltas 1A/1B, 2A/2B, 3A/3B, 4A/4B, 7A/7B, and 8A/8B).

catchment area¹¹⁴. Professor Cowx, whose evidence you have just heard, has identified other deficiencies in Dr. Ríos's study, and concluded that it did not provide "empirical data necessary to establish OR provide support for the conclusion that sediment eroded from the Road has adversely impacted the aquatic ecology of the San Juan River"¹¹⁵.

22. In the light of these issues, it is hardly surprising that Mr. Loewenstein spent less than thirty seconds on Dr. Ríos's study on Tuesday and, notably, he did not put Dr. Ríos's study to Professor Cowx this morning.

(ii) CCT's Samples

23. In contrast, Professor Kondolf and Mr. Loewenstein both spent much more time on a study done by Costa Rica's CCT as part of the environmental diagnostic assessment¹¹⁶. Remarkably, and despite the emphasis given to that study this week, Mr. Loewenstein did not put to Professor Cowx — the only expert on aquatic ecology to give live evidence to you — the CCT study to Professor Cowx this morning. The CCT study sampled the macroinvertebrates on Costa Rican streams. Using these samples, the CCT drew conclusions as to macroinvertebrate richness and abundance and also as to the water quality of the sampled streams.

24. Professor Kondolf referred to the CCT study as soon as he could when aquatic species were mentioned on Monday¹¹⁷, and Mr. Loewenstein followed suit on Tuesday¹¹⁸, although, as I have noted, he was studiously silent on the study when cross-examining Professor Cowx this morning. When the CCT study was mentioned earlier this week, at least Professor Kondolf acknowledged that he was attributing conclusions to CCT that they did not themselves draw from the data¹¹⁹. Counsel for Nicaragua was less faithful to CCT's Report, removing the words "could

¹¹⁴Professor Ian G. Cowx, Written Statement, March 2015, paras. 31-32; see also Professor Ian Cowx, *Independent Expert Report concerning Evidence of Impacts on the Aquatic Ecology of the San Juan River, Nicaragua, due to construction of Route 1856 in Costa Rica*, 11 Dec. 2014, RCR, Ann. 2, pp. 48-49.

¹¹⁵Professor Ian G. Cowx, Written Statement, March 2015, para. 48; see also paras. 28-30; and Professor Ian Cowx, *Independent Expert Report concerning Evidence of Impacts on the Aquatic Ecology of the San Juan River, Nicaragua, due to construction of Route 1856 in Costa Rica*, 11 Dec. 2014, RCR, Ann. 2, p. 49.

¹¹⁶Centro Científico Tropical (CCT) *Environmental Diagnostic Assessment EDA*, *Route 1856 Project – Ecological Component*, November 2013, CMCR, Ann. 10; and Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project- EDA Ecological Component*, Jan. 2015, RCR, Ann. 14.

¹¹⁷See CR 2015/8, p. 43 (Kondolf). See also CR 2015/8, p. 64 (Kondolf).

¹¹⁸See CR 2015/10, pp. 24-25, paras. 3-4 (Loewenstein).

¹¹⁹CR 2015/8, pp. 63 and 65 (Kondolf).

be the cause”¹²⁰ from his quotation of the CCT Follow-Up Study so as to be able to attribute a conclusion on risk of harm to CCT.

25. Of course, as Mr. Wordsworth has mentioned, it is remarkable that virtually the only data on which Nicaragua — the Applicant in this case — now relies, to substantiate its claim of significant harm to the San Juan River, is data taken by Costa Rican experts, on Costa Rican territory. And I would add it is astonishing that Nicaragua did not put that data to Professor Cowx.

26. CCT’s scientists did try to carry out sampling on the San Juan River; they requested that Nicaragua allow them to go onto the San Juan for this purpose. Nicaragua refused¹²¹. You will find relevant extracts of CCT’s Follow-Up Study from January 2015 at tab 9 of your folders. If you turn to the page 16 — or page 71 if you use the numbering at the bottom of the bundle, the bottom of the page — at paragraph 2.6, the second paragraph reads:

“As with the case with the formulation of the EDA in 2013, it was not possible to enlarge the study area due to the Nicaraguan Government’s refusal to allow scientists in the study team to enter the San Juan River. For this reason, it was not possible to sample the San Juan River or the waters in the mouths of the rivers and channels, which would have provided valuable information for analysis of the environmental conditions of the River.”¹²²

27. As a result of Nicaragua’s refusal to allow CCT scientists to access the San Juan, CCT’s study was necessarily limited to localized impacts on the streams within Costa Rica, and its study could not address the question of impacts on the San Juan.

28. The sampling done in Costa Rica was on ten small streams. The location of these streams are indicated on maps also found at tab 9 of your folders, at pages 74 to 77, together with some photographs of the sampled streams¹²³, which are at pages 79 to 86. As you can see from

¹²⁰CR 2015/10, p. 27, para. 12 (Loewenstein) (“The authors of the EDA Follow-up considered Road-derived sediment to present a risk; they concluded that the ‘localized decrease[s] in the quality of water’ were ‘especially due to sedimentation processes’”). Cf. Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project- EDA Ecological Component*, January 2015, RCR, Ann. 14, p. 525, where the full sentence is: “It is likely that the change in micro-habitats in the bodies of water, resulting from the works on the Route, could be the cause of the localised decrease in the quality of water, especially due to sedimentation processes.”

¹²¹Centro Científico Tropical (CCT) *Environmental Diagnostic Assessment EDA*, *Route 1856 Project – Ecological Component*, November 2013, CMC, Ann. 10, p. 513 (last paragraph) and p. 519 (para. 27); and Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project - EDA Ecological Component*, January 2015, RCR Ann. 14, p. 456, para. 2.6; tab 9 of judges’ folders. See also Note from the Minister for Foreign Affairs of Nicaragua to the Minister for Foreign Affairs and Worship of Costa Rica, ref. MRE/DM-AJ/129/03/13, 5 Mar. 2013; CMC, Ann. 48, p. 229 (rejecting Costa Rican navigation on the San Juan River “for scientific purposes”).

¹²²Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project- EDA Ecological Component*, Jan. 2015; RCR, Ann. 14, p. 456, para. 2.6; tab 9 of judges’ folders.

¹²³Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project- EDA Ecological Component*, Jan. 2015; RCR, Ann. 14, Maps 1-3, pp. 44-476, and table 5-1, pp. 477-486; tab 9 of judges’ folders.

those photographs, most of the streams are very narrow, they are about 3 m wide; one is 25 m wide, but it is downstream of the Sarapiquí, some 60 km from Professor Kondolf's severely eroding sites 8 and 9¹²⁴.

29. It is worth looking at what these samples from Costa Rican streams actually show. For macroinvertebrates, taxa richness and abundance was lower downstream on only seven sites; it was higher downstream on three sites¹²⁵. Interestingly, there was little consistency — richness was not lower on all the same sites that abundance was lower¹²⁶, which is perhaps another reason why CCT did not draw any definitive conclusions from these data. On page 47 of their Follow-Up Study, which is also at tab 9, in the second paragraph, CCT summarize the results in respect of macroinvertebrates, and then conclude: “Such changes have occurred at the micro level, and are a temporary response to changes in the environment. We do not consider them as a pointer towards long term significant impacts.”¹²⁷

30. So from a study done on Costa Rican streams, not on the San Juan River: changes at the “micro level”, a “temporary response”, which did not point “towards long term significant impacts”. Of course, none of those conclusions feature in Nicaragua's explanation of this evidence to you on Tuesday of this week.

31. For water quality, four different analyses were given: for diversity, values were higher upstream on six Costa Rican streams and lower upstream on four; the dominance, values were higher upstream on five, and lower upstream on five; for equity, values were higher upstream on seven and lower upstream on three; and, applying a Costa Rican biota index, values were lower downstream on nine of ten¹²⁸, although CCT noted that the biota index scores were not

¹²⁴See Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project- EDA Ecological Component*, Jan. 2015; RCR, Ann. 14, Table 5-1, pp. 477-489, column 5 showing width/depth; tab 9 of judges' folders.

¹²⁵Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project- EDA Ecological Component*, Jan. 2015; RCR, Ann. 14, p. 487; tab 9 of judges' folders.

¹²⁶Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project- EDA Ecological Component*, Jan. 2015; RCR, Ann. 14, see Graph 1 on p. 487 and Graph 3 on p. 488; tab 9 of judges' folders.

¹²⁷Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project- EDA Ecological Component*, Jan. 2015; RCR, Ann. 14, p. 487; tab 9 of judges' folders.

¹²⁸Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project- EDA Ecological Component*, Jan. 2015; RCR, Ann. 14, p. 489; tab 9 of judges' folders.

substantially different downstream and upstream — that there was no “extreme difference”¹²⁹. On the basis of this data, CCT concluded that there was not a “clear tendency”¹³⁰ and that any impacts “are local effects”¹³¹. This is recorded on page 49 of the Study.

32. Mr. Wordsworth took Professor Kondolf to CCT’s conclusions on Monday¹³², and you also have those conclusions, which are at pages 92 to 93, using the bundle numbering, under the heading “7.1.2 Aquatic Biology”.

- (a) In paragraph 4, CCT confirm that results with respect to macroinvertebrates were “very variable”.
- (b) At the end of paragraph 6, CCT note that impacts of the Road “could be imperceptible in some of the sampled sites possibly because the aquatic communities have already recovered”.
- (c) Over the page, in paragraph 7, CCT confirm that the streams “receive large quantities of sediment throughout the year coming from the watershed, so that it is expected that aquatic fauna is adapted to high levels of sediments in the water”.
- (d) Paragraph 8: “Therefore, the quantity of sediment contributed by Route 1856 is not sufficient to cause a significant impact on the bio-indicators studied at the sampled sites.”
- (e) Paragraph 9: CCT note that the “presence of groups which are sensitive to aquatic habitat alterations is a good sign, since these indicators often disappear when there is a strong alteration of the aquatic habitat”. Two lines further down: “The finding of sensitive families in practically all the sampling sites, both upstream and downstream, can be interpreted as a positive sign of recovery and of the lack of any serious impact by the road works on the environmental conditions of the points under study.” Quite different, I note, from Professor Kondolf’s assertion that CCT “found a lot of evidence that the sediment was impacting the macroinvertebrates and the water [column]”¹³³.

¹²⁹Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project- EDA Ecological Component*, Jan. 2015; RCR, Ann. 14, pp. 489-490; tab 9 of judges’ folders.

¹³⁰Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project- EDA Ecological Component*, Jan. 2015; RCR, Ann. 14, p. 489; tab 9 of judges’ folders.

¹³¹Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project- EDA Ecological Component*, Jan. 2015; RCR, Ann. 14, p. 519, para. 10; tab 9 of judges’ folders.

¹³²See CR 2015/8, pp. 62-65 (Kondolf).

¹³³CR 2015/10, p. 64 (Kondolf) (uncorrected transcript records “colony” instead of “column”).

(f) Paragraph 10: “It should also be noted that the sampling for bio-indicators was performed in bodies of water that flow into the San Juan River. The impacts detected caused by the works on Route 1856 to the bodies of water, such as the modification of substrata and sedimentation, are local effects.”

(g) Paragraph 11:

“The impacts, such as they are, should not transfer to the San Juan River since this river is of a superior order, with a stream volume much larger than those of the bodies of water in the study. The section of the San Juan River that runs parallel to the Route is located in the lower part of the watershed where the quantities of sediment are naturally high, so that any impacts of the Route construction on the organisms that inhabit the San Juan river would be expected to be minimal and very diffuse, given the volume of water that this river carries as a receptor body.”¹³⁴

Professor Kondolf was reluctant to agree with this, although he did concede that “certainly the impacts would be more intense right there”¹³⁵ — right there on the small streams. But it is obvious that any impacts in these small streams would be diffused in the Río San Juan, which has an average width of 292 m¹³⁶. So, in so far as the San Juan is concerned, the CCT Study does not constitute evidence of ~~actual~~ significant harm and no evidence of risk of significant harm.

(h) I will not read this out, you will be relieved to know, but in paragraphs 12 and 13 CCT go on to explain that to “evaluate with greater certainty” the impact of the road on the San Juan and its aquatic life, it is necessary to have information on what aquatic organisms are in the river, and what their tolerance is to sediment. Indeed. Like fish, data as to species, and data as to tolerance, are necessary to substantiate a claim to significant harm or risk of harm.

33. Mr. Loewenstein said on Tuesday that the data collected by CCT “demonstrate that aquatic life and water quality in the tributaries leading into the San Juan are being adversely impacted by sediment from the Road”¹³⁷, and that these data “demonstrate that the San Juan’s ecological health has been placed at risk by sediment from the road”¹³⁸. As we have just seen,

¹³⁴Centro Científico Tropical (CCT) *Follow-up and Monitoring Study Route 1856 Project- EDA Ecological Component*, Jan. 2015; RCR, Ann. 14, p. 519, para. 11, tab 9 of judges’ folders.

¹³⁵CR 2015/9, p. 64 (Kondolf).

¹³⁶CR 2015/11, p. 16, para. 8 (Brenes).

¹³⁷CR 2015/10, p. 28, para. 13 (Loewenstein).

¹³⁸CR 2015/10, p. 25, para. 3 (Loewenstein).

counsel's interpretation of these data stands in stark contrast to the conclusions of CCT, whose team included qualified experts in aquatic ecology, and who found that any changes were at the "micro level", "local effects", a "temporary response", and not a "pointer towards long term significant impacts". If Nicaragua wished to challenge the conclusions of this study the appropriate course of action would have been to carry out its own sampling, not to give inexpert opinion from its counsel at the Bar about CCT's sampling. And if Nicaragua had any genuine basis for its new assertions that the data underlying CCT's study shows adverse impact on aquatic life and water quality, then naturally one would have expected that it would have put those assertions to Professor Cowx. In any event, Professor Cowx told you this morning that he has seen nothing to indicate any loss of macroinvertebrates and fauna in the San Juan River¹³⁹. And I would finally note that, anyway, the Court has the CCT Reports, it has Professor Cowx's evidence, and it will no doubt be looking at that evidence carefully, since it is the only actual data on which Nicaragua now relies.

34. And, for the sake of completeness, and just in case there were any doubt, I should also just confirm, Professor Kondolf is not an expert in aquatic ecology or fish, that is clear from his CV attached to his report¹⁴⁰, while Nicaragua's only expert on aquatic ecology was not called to speak to her report.

C. No other significant harm

35. For completeness, I should mention briefly three other claims advanced by Nicaragua as to other sources of significant harm to the river.

(1) Impact on human health

36. Nicaragua has claimed compensation for costs to "public health"¹⁴¹, on the basis of significant harm caused to the health of riparians of the river¹⁴². There is no evidence of any

¹³⁹CR 2015/12, p. 18 (Cowx).

¹⁴⁰G. Mathias Kondolf et al., *Environmental Impacts of Juan Rafael Mora Porras Route 1856, Costa Rica, on the Río San Juan, Nicaragua*, MN, Ann. 1, pp. 3-4.

¹⁴¹MN, para. 6.33.

¹⁴²MN, para. 2.14.

impact on the health on any persons that would support a claim to any harm, still less significant harm, still less compensation.

(2) Impact on tourism

37. Nicaragua also claims compensation for significant harm to tourism on the San Juan River¹⁴³. This claim has no sensible legal foundation and is entirely unsupported by evidence of actual impact¹⁴⁴. The suggestion that Costa Rica is liable to pay compensation for a breach of international law because it built a road that Nicaragua finds visually unappealing is beyond absurd. It is perhaps for this reason that no one at the table opposite pursued this claim earlier this week.

(3) Risk of impact of hazardous substances

38. Finally, Nicaragua argues that there is a risk associated with hazardous substances being transported on the road¹⁴⁵. And this week Nicaragua's imaginings were painted to life by Professor Pellet's "camion-citerne". Costa Rica has explained that its laws prohibit the transport of hazardous substances on the road¹⁴⁶. That explanation was apparently not good enough for Professor Pellet¹⁴⁷, but in this case Nicaragua carries the burden of proof to make good its claim of significant harm, and references to imagined tanker trucks and imagined potential breaches of Costa Rican law are not proof of harm. And even as to the risk of harm, the idea of a spill of a hazardous substance is entirely speculative.

¹⁴³MN, paras. 4.1, 1.12 and 6.33.

¹⁴⁴See RCR, paras. 2.106-2.107.

¹⁴⁵RN, paras. 3.34 and 3.40.

¹⁴⁶See RCR, para. 2.105; see also Costa Rica, Executive Decree No 24715-MOPT-MEIC-S, 6 Oct. 1995, published in the Official Gazette number 207, 1 Nov. 1995; RCR Ann. 15; Costa Rica, Department of Transit Engineering, Ministry of Public Works and Transportation, Authorization of Routes for the Transport of Hazardous Materials, 1995; RCR Ann. 70; Note from the Chief Engineer of the Department of Studies and Designs of the Consejo Nacional de Vialidad (CONAVI) to the Chief of the Department of eights and Dimensions and to the Director-General of the Transit Police of Costa Rica, ref. DGIT-ED-4697-2014, 11 June 2014; RCR, Ann. 76; and Internal Communication of the Costa Rican General Department of Transit Engineering of the Ministry of Public Works and Transportation, regarding the Authorization of Routes for the Transport of Hazardous Materials, June 2014; RCR Ann. 77.

¹⁴⁷Cf. 2015/10, p. 66, para. 37 (Pellet).

(4) The micro deltas

39. I should also just mention the eight deltas characterized by Professor Kondolf as “huge”¹⁴⁸. These now seem not to form part of Nicaragua’s case on significant harm or risk of harm. Professor Pellet stood alone in mentioning the deltas on Tuesday, suggesting that they impeded navigation, particularly around the bifurcation between the Colorado and the Lower San Juan¹⁴⁹. Since none of Professor Kondolf’s eight deltas are in that reach, we presume that point will not be pursued next week.

40. I need only make three brief points about the eight deltas.

41. One: they are manifestly not huge; they are micro. You have seen them, and you have seen their scale relative to the river. Nicaragua accepts that some of them pre-date construction of the road¹⁵⁰.

42. Two: the deltas are not at each of Professor Kondolf’s “severely eroding sites”. It is not the case that eight of those areas has a delta¹⁵¹. These deltas are all concentrated in a stretch of 4 km of the river, at sites 8 and 9¹⁵².

43. Three: you have seen from the video shown yesterday afternoon that there are a dozen or so of these micro deltas on both sides of the river¹⁵³.

44. That completes Costa Rica’s explanation of the absence of any evidence of significant harm or significant risk of harm.

D. Costa Rica has complied with the Applicable Environmental Law Régime

(1) No breach of the obligation not to cause significant transboundary harm

45. The legal implications of the absence of evidence are clear. Costa Rica has fully complied with the obligation under general international law not to cause significant transboundary

¹⁴⁸Written Statement of Professor G. Mathias Kondolf, 16 Mar. 2015, para. 49.

¹⁴⁹CR 2015/10, p. 60, para. 25 (Pellet).

¹⁵⁰CR 2015/8, p. 62 (Kondolf).

¹⁵¹Cf CR 2015/9, p. 18 (Kondolf).

¹⁵²Co-ordinates of the eight deltas are given in App. F of G. Mathias Kondof, *Erosion and Sediment Delivery to the Rio San Juan from Route 1856*, July 2014; RN, Ann. 1, pp. 121-129.

¹⁵³See, for example, Professor Colin Thorne, *Assessment of the Impact of the Construction of the Border Road in Costa Rica on the San Juan River: Reply Report*, Feb. 2015; RCR, App. A, fig.5.2, pp. 92-95.

harm¹⁵⁴. There is no evidence that the road is having an adverse impact on the San Juan River: no evidence that it has had any significant, serious, substantial, real, or even appreciable adverse impact. Nicaragua's claim of significant harm must fail.

(2) No breach of applicable environmental law treaties

46. In its written pleadings, Nicaragua relied upon six environmental law treaties for its claims of breach¹⁵⁵. Costa Rica responded fully to those allegations in our written pleadings¹⁵⁶, and Nicaragua has elected not to grapple with our responses but merely to repeat its assertions of breach. On Tuesday, Professor McCaffrey dealt with them in a single paragraph¹⁵⁷ and his argument requires just one point to be emphasized in response.

47. He said that two of the conventions, the 1992 Convention on Biological Diversity and the 1971 Ramsar Convention “appl[y] to breaches wholly within Costa Rica’s territory”¹⁵⁸.

48. Nicaragua relies on Article 3 (1) of the Ramsar Convention¹⁵⁹, which concerns the formulation and implementation of plans to promote “as far as possible” the wise use and the conservation of the wetlands¹⁶⁰. As Costa Rica explained to the Court and to Ramsar, part of the road does traverse Costa Rica’s protected wetland; it is that part of the road starting about 10 km upstream from the Colorado River. There are none of Professor Kondolf’s “severely eroding sites” in that area. The protected wetland is some 72 km downstream from those “severely eroding sites” 8 and 9, those sites that have been the focus of Nicaragua’s allegations of significant harm and risk of harm. In accordance with the Ramsar Convention, Costa Rica did notify the Secretariat of the Ramsar Convention of the works on the road¹⁶¹, and it has since then provided an update to Ramsar

¹⁵⁴The existence of this obligation is accepted by both Parties: see, e.g., CR 2015/10, pp. 49-50, para. 2 (Pellet); and CR 2015/10, p. 47, para. 53 (McCaffrey).

¹⁵⁵RN, para. 6.143.

¹⁵⁶RCR, paras. 3.58-3.68.

¹⁵⁷CR 2015/10, p. 48, para. 59 (McCaffrey).

¹⁵⁸CR 2015/10, p. 48, para. 59 (McCaffrey).

¹⁵⁹Convention on Wetlands of International Importance especially as Waterfowl Habitat, Ramsar (Iran), 2 Feb. 1971, as amended by the Paris Protocol of 3 Dec. 1982 and the Regina Amendments of 28 May 1987; *Certain Activities* case, MCR, Ann. 14, Art. 3 (1).

¹⁶⁰MN, paras. 5.74-5.76; and RN, paras. 6.112-6.115.

¹⁶¹See Note from Minister for Foreign Affairs and Worship of Costa Rica, to Secretary General of the Ramsar Convention, ref. DM-110-12, 28 Feb. 2012; CMCR, Ann. 43; cf. CR 2015/7, p. 33, para. 31 (McCaffrey).

on those works¹⁶². Professor McCaffrey said last week that he did not know whether Costa Rica had consulted with Ramsar¹⁶³; I would simply refer him to Annexes 22, 43 and 73 of Costa Rica's Counter-Memorial, submitted in 2013. Professor Pellet told you 68.3 ha of primary forest in the Ramsar-protected wetland had been cut down for the road¹⁶⁴; that is wrong. In fact no primary forest was cleared in the Ramsar wetland, and the road there was built on a pre-existing track. Costa Rica has notified the road to the Ramsar Secretariat and has kept it informed of developments in relation to the road. Ramsar has specific procedures in place for the making of recommendations in respect of notifications of this kind and it is notable that Ramsar did not raise any objection, and it has not raised any objection since.

49. Nicaragua also invokes Article 8, paragraphs (*d*), (*e*), and (*f*) of the 1992 Convention on Biological Diversity¹⁶⁵. Those provisions require States, as far as possible and appropriate, to: promote the protection of ecosystems and natural habitats (paragraph (*d*)); to promote sustainable development in areas adjacent to protected areas (paragraph (*e*)); and to rehabilitate and restore degraded ecosystems and to promote the recovery of threatened species (paragraph (*f*)). Nicaragua has not demonstrated that the road falls foul of any of these requirements to endeavour appropriately to promote ecosystems and the like. It is for Nicaragua, as Applicant, to demonstrate an actionable breach of this Agreement and it has failed to do so.

50. Before I close on the issue of applicable legal obligations, I note that Nicaragua has now accepted that the 1858 Treaty is not *lex specialis* in respect of the parties' environmental law obligations, because it does not "conflict in any way" with those environmental obligations¹⁶⁶. Costa Rica takes note of Nicaragua's change of position in that regard, it having previously contended in its Memorial that the 1858 Treaty constituted the applicable law¹⁶⁷, and having

¹⁶²Ministry of Foreign Affairs and Worship of Costa Rica, *New works in the Northeastern Caribbean Wetland, Report to the Executive Secretariat of the Ramsar Convention on Wetlands*, July 2013; RCR, Ann. 73, sent to Ramsar Secretariat under cover of Note from the Permanent Representative of Costa Rica to the United Nations, Geneva, to the Secretary General of the Ramsar Convention, ref. MCPR-ONUG/2014-324, 17 July 2013; CMCR, Ann. 22.

¹⁶³CR 2015/7, p. 28, para. 41 (McCaffrey).

¹⁶⁴CR 2015/10, p. 57, para. 21 (Pellet).

¹⁶⁵MN, paras. 5.66-5.72; RN, paras. 6.106 and 6.108; Convention on Biological Diversity, Rio de Janeiro, 5 June 1992, 1760 UNTS 79, Art. 8.

¹⁶⁶CR 2015/10, p. 33, para. 4 (McCaffrey).

¹⁶⁷See MN, para. 1.13.

contended in the *Certain Activities* case that it constitutes *lex specialis*, displacing obligations under general international law and treaties¹⁶⁸. As Costa Rica explained last week, in so far as Nicaragua's activities on the San Juan are concerned, the 1858 Treaty and the 1888 Award do not displace Nicaragua's obligations under applicable environmental law rules, including because they are not inconsistent with the 1858 Treaty and because the 1858 Treaty must be interpreted in the light of relevant international law principles, including those relating to protection of the environment¹⁶⁹. Nicaragua did not respond to that in its first round in the *Certain Activities* case¹⁷⁰ and we expect that it will be clarifying its position in the second round.

E. Conclusion

51. Mr. President, Members of the Court, that concludes my remarks for this afternoon and I thank you for your patient attention. Mr. President, would you call on Ambassador Sergio Ugalde to conclude Costa Rica's first round of oral argument? Perhaps after the break.

Le PRESIDENT : Merci. Je vais donner maintenant la parole à Monsieur l'ambassadeur Sergio Ugalde.

Mr. UGALDE:

NICARAGUA'S REMEDIAL REQUESTS

1. Mr. President, Members of the Court, my task this afternoon is to examine Nicaragua's claims for remedial relief. Given what you have heard thus far, I shall be brief.

2. Nicaragua's claim contains a long shopping list, including, but not limited to, an order that Costa Rica must pay for Mr. Pastora's dredging project¹⁷¹. That submission is emblematic of the absurdity of Nicaragua's claims for relief. Costa Rica is confident that the real implications of what Nicaragua is asking for will not escape the attention of the Court.

¹⁶⁸See CR 2015/7, pp. 28-30, paras. 19-24; pp. 31-31, paras. 28-29; pp. 38-39, paras 44-46 (McCaffrey).

¹⁶⁹CR 2015/3, pp. 50-54, paras. 17-26 (Parlett).

¹⁷⁰Cf. CR 2015/7, pp. 28-30, paras. 19-24; pp. 31-31, paras. 28-29; pp. 38-39, paras 44-46 (McCaffrey).

¹⁷¹CR 2015/10, p. 58, para. 22 (Pellet).

**A. Introduction: The chameleonic character
of Nicaragua's claims for relief**

3. It is apparent from a cursory comparison of the submissions made by Nicaragua in its Application, Memorial, and Reply that its claims have changed substantially over the course of these proceedings. However, it would appear that there have been yet further modifications. Most notably, having been unable to establish the significant harm which constitutes the very foundation of its claim, Nicaragua now, some three-and-a-half years after these proceedings were commenced, asks the Court to appoint an expert to identify the significant harm for it¹⁷². This position suffers from a logical fallacy: if Nicaragua has not established significant harm, it has not established breach, and therefore is not entitled to a remedy for that breach.

4. In this presentation, I will address only those claims which Nicaragua appears to be maintaining. As such there are a number of elements of the relief which Nicaragua has claimed at various points during these proceedings which I will not address, but of course these are fully addressed in Costa Rica's written pleadings¹⁷³.

5. First, I will not address the merits of Nicaragua's extraordinary and extravagant claim for a declaration that it is entitled to suspend Costa Rica's rights of navigation on the San Juan River¹⁷⁴, *nor* its claim for a declaration that it is entitled to take the same action by way of countermeasure¹⁷⁵. No mention was made of either of these claims in Nicaragua's Reply or in its oral argument this week, and they appear to have been abandoned.

6. Second, there are Nicaragua's requests for declarations that it is entitled to undertake works for the improvement of navigation on the San Juan River as it deems suitable, including by dredging and that, in doing so, it is entitled to re-establish the conditions of navigation that existed at the time of conclusion of the Treaty of Limits in 1858¹⁷⁶.

¹⁷²CR 2015/10, p. 61, para. 26 (4) (Pellet).

¹⁷³The *Road*, CMCR, paras. 6.1-6.26; *The Road*, RCR, paras. 4.1-4.37.

¹⁷⁴The *Road*, MN, para. 6.37-6.42.

¹⁷⁵The *Road*, MN, para. 6.43-6.44.

¹⁷⁶The *Road*, MN, p. 252 (para. 3 (i) and (ii)); RN, p. 282 (para. 4 (i) and (ii)).

7. The claims mirror exactly Nicaragua's position in its Counter-Memorial in the *Certain Activities* case¹⁷⁷, even though, I note, they were not made in their Application. You heard what Costa Rica says in that regard last week¹⁷⁸, and I will say no more on the topic today.

8. Third, in its written pleadings, Nicaragua alleged harm to tourism and the visual aesthetics of the countryside¹⁷⁹, fishing¹⁸⁰, and human health¹⁸¹, and requested compensation for losses relating to them¹⁸². However, as Dr. Parlett has already noted this afternoon, those claims are entirely unsubstantiated¹⁸³, and they were not pursued this week. I therefore say no more about them.

B. Nicaragua's claims for declaratory relief

9. Mr. President, I turn to the claims for declaratory relief, in so far as they appear to be maintained. Of course, all of Nicaragua's requests for declaratory relief — and indeed all its remedial claims — are necessarily premised on the assumption that it succeeds in establishing that Costa Rica has in fact breached its obligations. As has been demonstrated today, Nicaragua has failed to establish that construction of the road has caused any significant harm, that there is a risk of such harm, or that there has been a breach of any obligation incumbent on Costa Rica.

10. Professor Pellet affirmed that Costa Rica has “without any doubt committed one or more internationally wrongful acts — it has violated a number of obligations incumbent upon it under international law, and it is also evident that this or these acts have caused a serious injury to Nicaragua”¹⁸⁴.

11. Two observations are in order. First, Professor Pellet mentioned first breach, and only then damage. In similar vein, he later referred to the ILC's post-Ago exclusion of damage as a

¹⁷⁷*Certain Activities*, CMN, pp. 455-456 (para. 2 (iii) and (iv)).

¹⁷⁸CR 2015/04, pp. 42-43, paras. 24-25 (Kohen).

¹⁷⁹The *Road*, MN, paras. 1.12, 4.1 and 6.33.

¹⁸⁰The *Road*, MN, paras. 3.93 and 6.33.

¹⁸¹The *Road*, MN, paras. 2.14 and 6.33.

¹⁸²The *Road*, MN, para. 6.33.

¹⁸³The *Road*, RCR, paras. 2.94-2.95.

¹⁸⁴CR 2015/10, pp. 51-52, para. 8 (Pellet) (Original French: “sans aucun doute commis un ou plusieurs faits internationalement illicites — il a violé nombre d'obligations lui appartenant en droit international, et il est évident aussi que ce ou ces faits ont causé un grave préjudice au Nicaragua”).

necessary element for the existence of breach of an international obligation from the Articles on State Responsibility¹⁸⁵, contrasting this with the central role it plays for the Part Two of the Articles on the “Content” of international responsibility¹⁸⁶.

12. The proposition that proof of damage or harm is not required in order to establish the breach of an international obligation is undoubtedly true as a general matter. But, this is not always the case¹⁸⁷.

13. The central claim by Nicaragua in the present case, and the foundation for its various remedial requests, is that significant harm has been caused by the construction of the road. This is an example of a primary obligation which does not conform to the general rule. It is only by proving that significant harm has been caused that Nicaragua can establish a breach. The causing of significant harm *is* the breach.

14. Second, in discussing Nicaragua’s claim for compensation, Professor Pellet suggested that, should the Court determine that “the consistency and extent of these damages appear not to be sufficiently established”¹⁸⁸, it should proceed to appoint an expert “to establish in an objective and irrefutable manner the existence of these harms and their causation”¹⁸⁹.

15. That suggestion is a barely concealed acknowledgment that Nicaragua has failed to make out its case on significant harm. In a case such as the present, the question of whether significant harm has been caused, and therefore of breach, cannot be postponed to a subsequent phase of these proceedings. Nicaragua is only entitled to a remedy if it establishes a breach. The time for it to do so is now.

16. As regards the claim for a declaration as to cessation, Professor Pellet spent some time seeking to establish that the significant harm Nicaragua alleges is continuing. Ultimately, however, he accepted that the declaration for cessation sought by Nicaragua is indistinguishable from the

¹⁸⁵CR 2015/10, pp. 50-51, para. 5 (Pellet).

¹⁸⁶CR 2015/10, p. 51, para. 5 (Pellet).

¹⁸⁷*Articles on Responsibility of States for Internationally Wrongful Acts, Commentary to Article 2, paragraph (9), ILC Yearbook 2001, Vol. II (2), p. 36.*

¹⁸⁸CR 2015/10, p. 61, para. 26 (4) (Pellet) (Original French: “la consistance et l’étendue de ces dommages ne sembleraient pas suffisamment établies”).

¹⁸⁹CR 2015/10, p. 61, para. 26 (4) (Pellet) (Original French: “pour établir d’une manière objective et irréfutable l’existence de ces préjudices et la chaîne de leur causation”).

measures it is seeking by way of *restitutio*¹⁹⁰. The claim for cessation therefore appears no longer to be pursued as a separate head of relief.

17. Nicaragua also seeks declarations in respect of potential, future breaches. Professor Pellet suggested that these might fall under the rubric of “guarantees of non-repetition”¹⁹¹. But, of course, here there is no prior breach in relation to which guarantees of *non-repetition* are required.

18. The declarations which Nicaragua seeks relate to potential new breaches which, if they were to occur at all, lie entirely in the future, and are purely speculative. Nicaragua has been unable to show that it is probable, let alone likely, that the feared breaches to which those prospective declarations relate will, in fact, occur.

19. This is particularly the case for Nicaragua’s request, introduced in the Reply, that the Court pre-emptively order that Costa Rica must prevent any use of the road for transport of hazardous materials, unless stringent conditions are fulfilled¹⁹².

20. Nicaragua’s claim for a declaration in this regard is based entirely on speculation that the road *may* in the future be used for transport of hazardous materials, which *could* potentially have an impact upon the river, *in the event* that an accident were to occur. It is not based on any breach by Costa Rica of an existing binding international obligation. There is no basis for a binding declaration of this Court in this regard.

21. That is all the more so given that, as Dr. Parlett explained earlier¹⁹³, and as we showed in our Rejoinder¹⁹⁴, in light of the content of Costa Rica’s domestic legislation, there will be no significant transport of hazardous waste on the road. Nicaragua’s concerns in this regard are completely groundless.

22. Nicaragua’s request for a declaration that Costa Rica may not carry out any new activities in the region of the San Juan without previously carrying out an environmental impact

¹⁹⁰CR 2015/10, p. 58, para. 19 (Pellet).

¹⁹¹CR 2015/10, p. 64, para. 32 (Pellet).

¹⁹²RN, p. 252, para. 3 (ii).

¹⁹³*Above, p. 40, para. 38 (Parlett)*.

¹⁹⁴RCR, paras. 2.104-2.105.

assessment, which should be presented in a timely fashion to Nicaragua for its analysis and reaction¹⁹⁵, is equally ill-founded.

23. First, it is obviously unnecessary because it substantially reproduces the content of the international environmental obligations which Costa Rica already accepts are binding upon it¹⁹⁶.

24. Second, the proposed declaration is excessive, in so far as it appears to envisage the prohibition of the carrying out of *any* new activity in the region of the San Juan without a prior EIA. As Professor Kohen explained, not every proposed activity in the border area will necessarily require an EIA¹⁹⁷. It is also insufficiently precise as to its scope. The declaration requested stands in contrast with Nicaragua's position in the *Certain Activities* case, where, on the basis of its *lex specialis* argument, it claims not to be subject to any such obligations in relation to its dredging programme¹⁹⁸. Although, as Dr. Parlett indicated, it appears to have abandoned that position.

25. I should turn to Nicaragua's general request for a declaratory relief that Costa Rica is bound to prepare an appropriate transboundary environmental impact assessment¹⁹⁹. Costa Rica has established that first, the threshold triggering a requirement to carry out an EIA was not met in this case²⁰⁰, as the proposed activity did not entail a risk of significant transboundary harm. Second, even if that threshold had been reached, *quod non*, Costa Rica was not required to carry one out because of the situation of emergency it faced, and which was brought about by Nicaragua's military actions and threats²⁰¹. At any rate, Costa Rica produced 22 technical studies on the road, including an EDA and its follow-up study. Mr. President, I do not know if you would like me to finish or if you would like me to . . . ? Very well.

¹⁹⁵MN, p. 252, para. 2 (iv); NR, p. 282, para. 3 (i).

¹⁹⁶See CR 2015/3, pp. 45-50, paras. 3-16 (Parlett).

¹⁹⁷CR 2015/11, p. 49, para. 34 (Kohen).

¹⁹⁸See, e.g., CR 2015/5, p. 35, para. 27 (Pellet); *ibid.*, p. 40, para. 38 (Pellet); CR 2015/7, pp. 28-29, para. 16 (McCaffrey); CR 2015/10, p. 32, para. 3 (McCaffrey).

¹⁹⁹RN, para. 7.22.

²⁰⁰CR 2015/11, pp. 46-50, paras. 26-38 (Kohen).

²⁰¹*Ibid.*, pp. 51-53, paras. 39-45 (Kohen).

C. Nicaragua's Claim for Restitution ("restoration of the *status quo ante*")

26. Mr. President, Nicaragua's claims for restitution have also undergone notable modification over the course of this case.

27. Whilst initially requesting an order that Costa Rica "restore the *status quo ante*"²⁰², in its Reply, Nicaragua qualified its request for restitution, and asked that the status quo should be restored "as far as possible"²⁰³. At the same time, it makes clear that it does not request the "complete re-establishment of the *status quo ante*"²⁰⁴, involving the destruction of the road. Professor Pellet essentially maintained Nicaragua's position in this regard on Tuesday²⁰⁵.

28. In addition, Professor Pellet, reformulated Nicaragua's claims for a declaration that it is entitled to dredge the Lower San Juan as it sees fit, and its claim for compensation corresponding to the alleged additional cost of dredging resulting from sediment from the road, as in some way falling under the rubric of restitution²⁰⁶.

29. As with Nicaragua's claims for purely declaratory relief, the claim for restitution is necessarily premised upon it establishing the breaches it alleges, specifically the alleged breach of the obligation not to cause significant transboundary harm.

30. But even assuming that a breach has been established — which Costa Rica does not accept — the specific measures which Nicaragua claims as *restitutio*, including the replanting of trees, the reconstruction and consolidation of river banks, and what Professor Pellet called "une remise en état conforme aux règles de l'art"²⁰⁷, do not constitute restitution corresponding to the breaches it alleges.

31. Although he referred to it²⁰⁸, Professor Pellet did not show you Article 35 of the ILC's Articles on State Responsibility.

²⁰²MN, para. 6.31.

²⁰³RN, par. 7.7; see also *ibid.*, para. 7.8.

²⁰⁴RN, para. 7.8.

²⁰⁵CR 2015/10, p. 57, para. 20 (Pellet).

²⁰⁶CR 2015/10, p. 59, para. 23 (Pellet).

²⁰⁷CR 2015/10, p. 57, para. 21 (Pellet).

²⁰⁸CR 2015/10, p. 56, para. 19 (Pellet).

32. The key concept is that restitution should “re-establish the situation which existed before the wrongful act was committed”²⁰⁹. This implies that the measures required by way of restitution should correspond to, and wipe out, the consequences of the conduct which constitutes the breach for which restitution is claimed as reparation.

33. As observed by the ILC in its Commentary: “What may be required in terms of restitution will often depend on the content of the primary obligation which has been breached”²¹⁰. That requires careful analysis of the relevant primary obligation, and the conduct said to have resulted in its breach.

34. As I have said, the relevant obligation is not one to cause significant harm. The obligation does not prohibit a specific action; what is prohibited is the result. Put in other terms, a State is required only to ensure that no significant transboundary harm is caused, the obligation says nothing as to the actions it must take to ensure that result.

35. It follows that even if the Court were to conclude that the construction of the road had caused and was continuing to cause significant transboundary harm through the deposit of sediments into the San Juan River, which it is not, it would be for Costa Rica to proceed in a manner of its own choosing to put an end to the breach.

36. Nicaragua has implicitly recognized this by its abandonment of the request, put forward as a claim for provisional measures in the Memorial, and repeated in its 2013 Request for Provisional Measures, that the Court should require specific detailed measures of remediation as requested by its experts, including re-routing of sections of the road²¹¹. It is similarly recognized in the qualifications it makes to the scope of the restitution requested in its Reply, repeated by Professor Pellet on Tuesday²¹².

37. But just as Nicaragua is not entitled to claim restoration of the Costa Rican countryside to its previous condition, it cannot insist that trees should be replanted, or insist that remedial works should be undertaken on the banks, or that the road should be constructed in a particular way.

²⁰⁹*Articles on Responsibility of States for Internationally Wrongful Acts, Article 39, ILC Yearbook 2001, Vol. II (2), p. 35.*

²¹⁰*Articles on Responsibility of States for Internationally Wrongful Acts, Commentary to Art. 35, para. (6), ILC Yearbook 2001, Vol. II (2), p. 98.*

²¹¹MN, para. 6.8.

²¹²CR 2015/10, p. 57, para. 20 (Pellet).

Nicaragua's right is that significant harm should not be caused to its territory. As explained earlier, there is absolutely no evidence that significant harm has been caused by the construction of the road; but even, in the event that the Court were to find that there were a breach, the modality by which Costa Rica complies with its obligation not to cause significant harm is for Costa Rica to decide.

38. Equally, nor does Nicaragua have the right to insist, if a breach were to be found, that the measures to be taken by Costa Rica should be supervised or decided upon by an expert, whether appointed by the Court, as it requested in its Reply²¹³, or appointed by Nicaragua and Costa Rica jointly, as Professor Pellet suggested on Tuesday²¹⁴. The choice of measures to be taken within Costa Rican territory, leading to the result to be achieved, would necessarily be for Costa Rica alone.

39. All of this, I should underline, is purely hypothetical. Costa Rica has not caused any harm and has not breached any international obligation.

40. Nicaragua's requests for particular orders that measures be taken are in fact an ill-disguised attempt to persuade the Court to impose an Order dictating remedial works to be undertaken by Costa Rica. By contrast, in the *Certain Activities* case, Costa Rica has not requested any such extravagant order as regards the manner in which Nicaragua's dredging operations have been implemented.

41. As such, there is no basis for the Court to make any order either for "restoration of the *status quo ante*", or requiring Costa Rica to take specific measures of remediation by way of restitution.

D. Nicaragua's claim for compensation

42. Finally, I turn to Nicaragua's claim for compensation. As I noted earlier, the claims for compensation for harm to fishing, tourism and public health appear to have been abandoned, which leaves us only with Nicaragua's claim that Costa Rica should pay compensation for the alleged

²¹³RN, para. 7.35.

²¹⁴CR 2015/10, p. 57, para. 21 (Pellet).

increased cost of dredging of the Lower Rio San Juan. As I have said this is, in effect, a request that Costa Rica should pay for Mr. Pastora's dredging.

43. Professor Pellet suggested that Nicaragua's claim for compensation in that regard falls in some manner within the rubric of restitution, or at least straddles the border between restitution and compensation²¹⁵. However, as we see it, Professor Pellet's innovative theory adds little to the debate, and I will deal with Nicaragua's claim simply under the heading of compensation.

44. Here the short response is that in order to be able to claim compensation, Nicaragua must demonstrate that it has suffered significant harm, and that that harm is financially assessable. Nicaragua has failed to do either.

45. The only other point to make is that, as I have already said, Nicaragua cannot seek to postpone the requirement of proving that it has suffered harm until a later phase of these proceedings, including through requesting the Court to appoint an expert. The harm suffered must be established at the present stage of proceedings, as an elementary precondition of both breach and its entitlement to the remedy of compensation.

E. Conclusion

46. Mr. President, Members of the Court, the manner in which Nicaragua's claims for relief have changed over the course of this case demonstrate the lack of foundation and futility of its overall claim. In addition, I would suggest that it reveals this case for what in reality it is — an attempt to divert the Court's attention from the very serious breaches of Nicaragua's international obligations in the *Certain Activities* case.

47. Seen in this light, Nicaragua's repeated insistence upon its right to set-off or compensate any damages awarded against it in the *Certain Activities* case against the sums it claims by way of compensation in the present case²¹⁶, is indeed revealing.

48. For all of these reasons, all of Nicaragua's claims fail and must be rejected.

49. Mr. President, that concludes Costa Rica's first round presentation in the case concerning *Construction of a Road*. Mr President, if it pleases the Court, Costa Rica is ready to answer the

²¹⁵CR 2015/10, p. 58, para. 22 (Pellet).

²¹⁶CR 2015/7, p. 61, para. 43 (Pellet); CR 2015/10, p. 61, para. 26 (5) (Pellet).

questions put yesterday by Judge Bennouna and Judge Greenwood. If that is the case, I will ask that the floor be given to Professor Marcelo Kohen. Thank you.

Le PRESIDENT : Merci. Est-ce que le professeur Kohen a besoin d'un long moment ? Si c'est le cas, nous faisons une pause, si ce n'est pas le cas, je lui donne tout de suite la parole. Le professeur Kohen.

M. KOHEN : Cela ne prendra pas plus de cinq minutes, Monsieur le président.

Le PRESIDENT : Je vous en prie.

M. KOHEN : Je commence par la question posée par le juge Bennouna, qui se lit comme suit :

«Le Costa Rica estime que l'obligation internationale de procéder à une évaluation de l'impact sur l'environnement EIE est conditionnée par l'existence d'un risque transfrontière significatif ou important. Le Costa Rica peut-il préciser à la Cour, premièrement, comment l'existence d'un tel risque peut-elle être établie pour que l'obligation de procéder à une EIE puisse s'imposer au Costa Rica avant que celui-ci ne mette en œuvre son projet de route ? Deuxièmement, si comme semble le suggérer le Costa Rica, la preuve de ce risque incomberait au Nicaragua, dans quelles conditions ce dernier peut-il apporter la preuve qui lui est ainsi demandée ?»

La réponse est la suivante : L'exigence de *procéder à une* EIE est en effet conditionnée par l'existence d'un risque de dommage transfrontière significatif. L'existence d'un tel risque est déterminée dans certains systèmes conventionnels parce que l'activité visée est incluse dans une liste d'activités qui requièrent une EIE. Tel n'est pas le cas ici. Dans d'autres cas, cela est fait par le truchement d'une évaluation qui tient compte de l'activité ou de l'ouvrage envisagés et de son possible impact environnemental. Cette évaluation préalable ne fait toutefois pas partie de l'EIE proprement dite.

Dans ce contexte, la réponse à la première question posée par le juge Bennouna est la suivante : Pour que cette obligation ait pu être imposée au Costa Rica, il aurait fallu que le Gouvernement costa-ricien ait pu déterminer l'existence d'un risque transfrontière significatif ou important. Au moment où cette décision a été prise, le Costa Rica a tenu compte de la nature de l'ouvrage envisagé et des possibles impacts sur la base de l'information que le Gouvernement costa-ricien possédait sur le fleuve. La construction de la route fut par ailleurs décidée comme

mesure d'urgence dans le contexte que la Cour connaît et sur lequel il n'est pas besoin d'insister ici. Le Gouvernement costa-ricien a tenu compte des éléments suivants : la nature modeste des travaux envisagés, le fait qu'il existait déjà des tronçons de route dans le parcours considéré, le fait que la seule conséquence transfrontière possible de ces travaux et de l'existence de la route serait un apport sédimentaire dans le San Juan et le fait que le San Juan est un fleuve qui transporte une forte charge sédimentaire. Ces facteurs ont conduit le Gouvernement costa-ricien à considérer que l'apport des sédiments au fleuve serait imperceptible et, par conséquent, qu'il n'y avait aucun risque de produire un dommage transfrontière significatif.

Pour répondre à la seconde question, il convient de préciser que nous avons affirmé que si le Nicaragua considère que le Costa Rica a violé son obligation de conduire une EIE, il lui appartient d'apporter la preuve d'une telle violation. Le Nicaragua aurait pu, par exemple, apporter les éléments scientifiques requis par le Costa Rica dans sa note du 29 novembre 2011. Le Nicaragua aurait pu le faire de manière bilatérale, que ce soit avant ou après cette note. Sur la base de l'information scientifique produite par le Costa Rica dans son contre-mémoire et dans sa duplique, et par lui-même ; il aurait pu l'établir aussi durant la présente procédure devant votre Cour. Le fait qu'il ne l'a pas encore fait confirme l'évaluation du Costa Rica.

Now I turn to the question raised by Judge Greenwood, who asked the following question:

“If I heard Counsel for Costa Rica correctly this afternoon — and if I did not, my apologies — I believe that he said to us that the Road constructed by Costa Rica provided a service to riparians on both sides of the river. I would be grateful if Costa Rica would confirm that it is indeed saying that the Road is available for use by Nicaraguan riparians. And, secondly, if that is what Costa Rica is saying, would they please explain the circumstances in which Nicaraguan riparian inhabitants have access to the Road?”

Judge Greenwood understood me correctly. During my presentation I said that, unlike Nicaragua, which has effectively suspended navigation by Costa Rica on the San Juan River, the road is not only open for the benefit of Costa Rican riparians but also for the benefit of those riparians on the other side of the river²¹⁷. The *Road at* issue is a public road. Any person, lawfully on Costa Rican territory, has access to it, and may use it. Costa Rica does not impose general restrictions upon the constitutionally protected right of freedom of movement throughout its territory. As Costa Rica

²¹⁷CR 2015/11, p. 49, para. 33 (Cohen).

explained in the case concerning *Navigational and Related Rights*²¹⁸, riparians from the Nicaraguan side of the river make use of Costa Rica's basic services. As a matter of fact, children come from Nicaragua to Costa Rican schools along the border as was explained by Dr. Del Mar last Tuesday²¹⁹. These children, like any other riparian from the Nicaraguan bank, naturally need to travel over the San Juan River in order to reach the Costa Rican bank and then have access to the road. This is not an infrequent way to reach school by children in that area. Some road facilities were aimed at easing access to schools. The principal aim of the bridge constructed in Chorreras is to facilitate access to the school in Chorreras de Cutris, this is along the road²²⁰. Once completed, the road will run from Los Chiles all the way to Delta Colorado. And there is already a road connecting San Carlos de Nicaragua to Los Chiles in Costa Rica. The San Carlos de Nicaragua/Los Chiles road provides Nicaraguans with direct access by land to the road at issue in this case. It is also possible to reach the road by land from Castillo Viejo, Nicaragua.

Et je reviens, Monsieur le président, à ma langue préférée pour vous souhaiter, Mesdames et Messieurs de la Cour, au nom de l'ensemble de la délégation du Costa Rica, un très agréable week-end.

Le PRESIDENT : Merci, Monsieur le professeur. Un membre de la Cour souhaite poser des questions aux Parties, je vais donc lui donner la parole. Je donne la parole à M. le juge Bhandari.

Judge BHANDARI: Thank you, Mr. President. The question is for both of the Parties.

In both the written and oral evidence presented in this case so far, the Court has seen numerous examples from highly developed countries in support of the argument that Costa Rica did not exercise care in constructing the Road along the San Juan River.

I would recall that Principle 23 of the Stockholm Declaration and Principle 11 of the Rio Declaration explicitly recognize that environmental standards applied in more developed countries may present an "inappropriate or unwarranted economic or social cost for developing

²¹⁸*Dispute regarding Navigational and Related Rights (Costa Rica v. Nicaragua)*, MCR, para. 4.54.

²¹⁹CR 2015/4, p. 17, para. 25 (Del Mar) ; *Certain activities*, MCR, Vol. III, Annex. 122.

²²⁰Photograph of pedestrian bridge over La Chorrera creek, RCR, CONAVI Report, December 2014, Ann. 11, p. 40 (p. 248).

countries”. These concerns are also contained in Commentaries 12, 13 and 17 of Article 3 of the ILC Draft Articles on Prevention of Transboundary Harm from Hazardous Activities.

In the light of these observations, I wish to pose the following questions to both the Parties:

1. How, if at all, should the authorities I have just mentioned be applied by the Court in assessing whether Costa Rica exercised sufficient care in constructing the Road?
2. How much weight should the Court place on standards or “best practices” from highly developed countries while evaluating Costa Rica’s construction of the Road?
3. What exactly is the standard of care that should be applied to Costa Rica in this case? For instance, is it one of recklessness? Negligence? Due diligence? Strict Liability? Or something else?

Thank you.

Le PRESIDENT : Merci. Le texte écrit de ces questions sera remis aux Parties à bref délai. Les Parties sont priées d’y répondre lors de leur second tour de plaidoiries dans la présente affaire. Voilà qui met fin à l’audience de cet après-midi et clôt le premier tour de plaidoiries. Les audiences dans la présente affaires reprendront le jeudi 30 avril à 10 heures, pour entendre le second tour de plaidoiries du Nicaragua. A l’issue de cette audience, le Nicaragua présentera ses conclusions finales.

Le Costa Rica, pour sa part, prendra la parole le vendredi 1^{er} mai, à 15 heures, pour son second tour de plaidoiries. A la fin de l’audience, il présentera à son tour ses conclusions finales.

La Cour se réunira de nouveau mardi prochain, le 28 avril 2015 à 10 heures, pour entendre le second tour de plaidoiries du Costa Rica dans l’autre affaire jointe à la présente, l’affaire relative à *Certaines activités menées par le Nicaragua dans la région frontalière (Costa Rica c. Nicaragua)*.

Je vous remercie. L’audience est levée.

L’audience est levée à 17 heures.
